



# 2020 WASHINGTON EMPLOYER WORKFORCE NEEDS AND PRACTICES REPORT

Identifying Challenges and Opportunities for Continued Long-term Economic Growth

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Workforce Training and Education Coordinating Board  
Christopher Dula, Principal Investigator



## Preface Concerning COVID-19

This report was originally published three weeks after Washington state recorded the first COVID-19 case in the United States. Shortly thereafter, state officials passed a series of unprecedented orders to contain the outbreak, shutting down schools and businesses.

Responding to the pandemic crisis quickly became the primary focus of both employers and workers, alike. Unemployment claims spiked and many businesses closed as residents sheltered in place throughout the year.

The findings of this report, based on an extensive 2019 Workforce Board survey on employer needs and practices, as well as satisfaction with workforce system services, immediately appeared obsolete and irrelevant. However, as the economy looks to enter recovery in 2021, these findings are appearing more salient.

For example, despite record high unemployment, employers still find it difficult to recruit qualified talent. The survey also showed that more than one-third of Washington employers are unaware of workforce system services, which can connect employers with qualified talent, support additional skills training, and provide labor market information. Moreover, the pandemic has accelerated the drive towards greater automation. These, as well as other challenges and trends, are covered in this report.

The persistence of these challenges, both before and after the COVID-19 crisis, is a strong indication that deeper, structural issues are at play. This report offers insights and analysis gleaned from employer feedback, which may inform data-driven solutions.

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## Executive Summary

Washington's economic growth – like all economies – is driven by contributions from capital stock, labor inputs, and technological advancement. However, prevailing economic theory and empirical evidence suggests that technological advancement is the primary factor that drives long-term growth. Technological advancement compliments existing stocks by enhancing productivity.

To take advantage of such productivity gains, employers need to find and hire qualified workers while training and developing incumbent workers to effectively use technology by adopting new practices. The state's workforce system – tasked with engaging employers and jobseekers to help train, educate, and place new and incumbent workers – plays a critical role in economic development.

To help guide future planning, the Workforce Board developed a scientific survey to identify employer needs and practices, as well as employer satisfaction with workforce system services to better meet the needs of its customers. The survey was conducted in the summer of 2019. The findings, which are generalizable to employers on average in the state, helps clarify the workforce system's value proposition, customer pain points, areas of improvement, and domains of strength, as well as estimates employer awareness of these services.

## Employer Needs and Practices

### *Finding and Hiring Qualified Job Candidates*

Almost 70 percent of Washington's over 200,000 employers with two or more workers experienced workforce challenges in the past 12 months. Given a historically low unemployment rate, it is no surprise that finding and hiring qualified job candidates is the biggest challenge for employers – followed by challenges related to turnover and retention.

The scope of these challenges differs significantly across employer characteristics. Manufacturers, for example, reported recruitment as their biggest challenge 12% more often than service-providers. There does not appear to be meaningful differences in the type of workforce challenges identified between eastern and western Washington. The demand for talent is a ubiquitous concern across the state.

The most significant differences emerge when employer size is considered. Employers with less than 20 employees cited recruitment as their biggest workforce challenge 10% more frequently than larger employers on average. A more startling finding was that 17%

of these small employers reported forgone business opportunities because of this challenge, compared to just 2% of medium-sized and large employers. This is a significant economic drag given that one in five Washington workers are employed by a small employer.

Actions taken in response to recruitment challenges were also less likely to be helpful for small employers. Only 37% of small employers reported helpful outcomes compared to 49% and 57% of medium-sized and large employers, respectively.

Some actions taken in response to recruitment are more effective than others. Employers that increased recruitment efforts were almost 70% more likely to report a helpful outcome. This is not a blasé finding; increased recruitment efforts can be resource intensive. Medium-sized and large employers reported using a wider repertoire of recruitment tools than small employers, including much higher use of WorkSourceWA.com -- 30% of large employers versus just 9% of small employers. Moreover, medium-sized and large employers reported using state workforce system services in general more frequently than small employers. This is potentially low hanging fruit for improved service delivery, as 76% of employers cite 'not enough applicants' as an underlying reason for recruitment difficulties. Increased outreach of public workforce services should be considered.

Employers that automated certain job functions were almost 80% more likely to report a helpful outcome in response to recruitment challenges. And employers that lowered job requirements were about 70% more likely to report a helpful outcome. Synergies between increased recruitment efforts and lowering job requirements increased the probability of reporting a helpful outcome by an additional 24%, and an additional 19% for interactions between increased recruitment efforts and automating certain functions. What this means is that challenges related to finding and hiring qualified job candidates can be overcome, but at a cost that may be untenable for small employers.

### *Managing Turnover and Retention*

Turnover and retention is the second most common workforce challenge for Washington employers; a challenge that is experienced far more frequently for medium-sized and large employers than small employers, at 27% versus 14%. Overall, 11% of employers report turning down new business opportunities because of this challenge.

The two most helpful actions that employers cited taking in response to this challenge were using state workforce system services and increased training and professional development efforts. These actions increased the probability of a helpful reported action

by 63% and 59%. However, training, and professional development was the biggest workforce challenge for 7% of employers.

## **Employer Satisfaction with State Workforce System Services**

### *Value Proposition and Awareness*

The survey revealed several key areas where workforce system services could be improved. Increased outreach and marketing efforts of these services are chief among them, as an estimated 36% of Washington employers are unaware of state workforce system services and what they have to offer.

There also appears to be some misalignment with these services and the needs of employers, or at least some misunderstanding on the part of employers concerning the value proposition of these services. For example, 26% of employers claimed to not use state workforce system services because they think the services do not fit their needs. And an additional 12% think job candidates from the state workforce system would be the wrong fit for their organization. A general lack of employability, work experience, and training are leading drivers of recruitment difficulty recognized by employers, but these are also among the same pain-points workforce system services are designed to address.

### *Considerations when Gauging Satisfaction and Performance*

Employer satisfaction with state workforce system services is mixed. Only half of employers that used state workforce system services for finding and hiring qualified job applicants, or for training and professional development, would recommend these services to another employer. At first glance this is surprising – especially as a training resource – given that employers that used these services were significantly more likely to report a helpful outcome when they also identified turnover and retention as their biggest workforce challenge.

Employer size is a strong explanation for this discrepancy for several reasons. First, large employers report using state workforce system services more frequently than small employers. Second, 50% of workers are employed by large employers, which only account for 2% of total employers in Washington. Small employers on the other hand make up 90% of establishments but employ 20% of the workforce.

This skews polling towards the opinions of small employers. But it is possible that large employers are better served than small ones. There is a logical rationale for this. Large employers would have dedicated HR departments that could more effectively liaise with the workforce system than small employers, and outreach efforts on behalf of the

workforce system would be wise to reach out directly to large employers, who are more visible, fewer in number, and employ the bulk of the workforce. It is a matter of efficiency given limited resources but raises equity questions regarding small employers.

Performance targets related to employer engagement rates may be understating economic impact. For example, if a performance driven manager focused on increasing the sheer number of employers served, they may end up devoting too many resources to serving more employers that have a smaller economic footprint. In this respect, a WorkSource office that has an employer engagement rate of 15%, but is focused on small employers, may have a smaller positive economic impact than an office with a 2% rate but prioritizes large employers. The composition of employer sizes within workforce development areas may warrant consideration for employer engagement goal setting.

Non-exclusive services fare better. Two-thirds of employers would recommend using the state workforce system to access occupational wage and labor market information. This is promising because such online resources can effectively serve many customers at low cost. Raising awareness of online services like WorkSourceWA.com may help alleviate recruitment challenges – particularly when it comes to a lack of job applicants – for small employers, who less often have company-website job boards or use online job postings and social media as their largest peers.

Finally, demand for workforce system services are likely to increase over the coming years as employers do not anticipate the workforce challenges to subside. More than three-quarters of employers see believe filling positions will be the same or more difficult in the years ahead. A continued effort to engage with, and understand the needs of employers, is critical for improving service delivery.

## Overview

### Purpose

The mission of the Workforce Training and Education Coordinating Board (the Workforce Board) is to sustain Washington's economic vitality through a highly skilled workforce. Under its statutory mandate, the Workforce Board is tasked with using surveys of employers to assess both their workforce needs and their satisfaction with workforce program participants they have hired. The periodic surveys that the Workforce Board conducts every two years obtain information about hiring practices and incumbent worker training. The follow-up Employer Satisfaction Survey concerns employer satisfaction with hiring of workforce program participants, as well as overall satisfaction with engaging with the State's workforce development system.

The first module of this survey is designed to assess employer workforce Needs and Practices. Results are used to assess employer awareness of Washington State's Workforce System<sup>1</sup> (Workforce System), the difficulty Washington employers have in finding qualified applicants, identify successful strategies used to find qualified applicants, identify types of training that employers provide themselves, as well as develop a broader understanding of their workforce challenges and concerns. Identifying employer workforce Needs and Practices is a critical step in employer engagement.

In the past, survey results have contributed to biennial reports: *Workforce Training Supply, Demand, and Gaps*, and *Workforce Training Results: An Evaluation of Washington State's Workforce Training System*. They have also been used in the preparation of strategic state-level workforce development plans and in the strategic plans of the Workforce Development Councils serving 12 local workforce areas in Washington. The Governor and state Legislature have used past survey estimates to prepare workforce development aspects of the state budget.

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<sup>1</sup> For the purposes of this survey, the "State Workforce System" means the employment and training programs that are provided through WorkSource offices, the Division of Vocational Rehabilitation, the Department of Services for the Blind, and Community and Technical Colleges, Private Career Schools, and Apprenticeship programs across the state, along with informational and other resources provided by the Workforce Training and Education Coordinating Board and the Employment Security Department.

The second module, The Satisfaction Survey, collects information about employer satisfaction with new hires that have recently completed a Workforce System engagement areas, including:

- High school career and technical education programs
- Community and technical college career and technical education programs
- Four-year college and university programs
- Adult Basic Education programs
- Private career schools programs
- Apprenticeship programs
- Workforce Investment and Opportunity Act (WIOA) federally funded programs
- WorkSource Employment Placement programs
- WorkFirst services through the Division of Vocational Rehabilitation at the Department of Social and Health Services
- Programs under the Department of Services for the Blind

## Background

Prior to 2012, the Workforce Board surveyed employers every two years to assess their workforce training needs and practices as well as their satisfaction with Washington's State Workforce System<sup>2</sup>. The current research objectives of the surveys are:

- Assess the difficulty Washington employers have in finding qualified applicants
- Estimate future needs for skilled employees
- Identify types of training that employers provide themselves.
- Assess employer awareness and engagement with the Workforce System

It has been eight years since the last survey, which itself had not experienced significant design changes since the early 2000s. For this recent iteration, the survey was revised based on greater policy emphasis on employer engagement. The objective of the redesign was to make the survey simpler and more concise, and to provide insights on how to better serve employers. The 2019 survey will serve as a foundation for continued improvements in survey methodology, instrument design, and establishing a new baseline in service delivery metrics.

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<sup>2</sup> Past Employer Needs and Practices, and Satisfaction Surveys are available at <http://wtb.wa.gov/EmployerSurvey.asp>.

In order to better serve and engage employers, the survey has been revised to better identify the Workforce System's value proposition, customer pain points, areas of improvement, and domains of strength – as well as estimate a level of employers' awareness of workforce system services.

Prior iterations of the survey have used varying combinations of mail, phone and online collection. Past survey sample sizes ranged from 8,500 to 12,500 employers; with response rates ranging from 8% to 31%. A sufficiently large number of survey mail-outs were required to reliably sample from all 12 workforce development areas. Several factors were identified as contributing to lower response rates in the past, including survey length, bad address data, and lack of an explicit survey follow-up strategy. Past improvements that boosted survey response rates included reduced survey length, supplemental web-survey options, telephone follow-ups, and a cover letter within the mailed-out survey package indicating co-sponsorship supported by the Association of Washington Business (AWB) and Washington Chamber of Commerce Executives (WCCE). These past improvements were applied for the redesign and administration of the 2019 survey.

## Methodology

### Sampling

The Workforce Board purchased data containing business contacts, addresses, phone numbers and emails (when available) from Ivy Worldwide, Inc (Ivy) – a business-to-business marketing and advertising firm.

Ivy prepared a database consisting of what they believe is Washington State’s universe of employers, amounting to 239,601<sup>3</sup> unique employer ids, from which a random sample of 30,000 employers, meeting certain selection criteria, was extracted. To obtain this list, Ivy scrubbed and analyzed employer databases from multiple sources:

- Info Group
- Reference USA
- WA State Employment Security Department (ESD), Labor Market and Economic Analysis
- eSales Data
- US Census Bureau
- US Companies List

It was understood that this tactic of cross-validating across multiple sources would ensure that the employer data was as complete and accurate as possible. Although some of the listed resources did not provide the necessary data per se, they were useful for Ivy to verify firm counts across industry, location, and firm size.

Data scrubbing required matching, de-duplication and correction measures, with additional analysis used to ensure that all data fields were complete and that data missing from one source was correctly incorporated from other sources into Ivy’s master database. Prior to delivery, Ivy tested the database by extracting random samples to test for accuracy, completeness, and the ability of the Workforce Board to take the necessary actions to conduct the survey. The key intent of this data validation procedure was to ensure that the selection criteria were met, such that 1) approximately 50% of the contacts had to have a valid email address, with all mailing and phone contacts being valid, and 2) employers with two or less employees would not be included in the sample, which otherwise should be random.

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<sup>3</sup> The Labor Market and Economic Analysis division of ESD records an average of 224,289 classified under covered employment in Washington.

The final deliverable to the Workforce Board was a representative, random sample of 30,000 active employers sorted by company name, county, industry, number of employees, and contact information (mailing address, phone numbers, and email contacts).

The Workforce Board then verified that the contact list was representative across workforce development areas (Refer to **Figure 1: Washington State Workforce Development Regions**), industry – using the North American Industry Classification System (NAICS) – and firm sizes using ESD’s Quarterly Census of Employment and Wages (QCEW) file for 2018 annual averages.<sup>4</sup> However, the Workforce Board was unable to verify the quality of the dataset because only aggregated counts of employers were available for comparing proportions

### **Questionnaire Development**

The survey questionnaires for both the Needs and Practices module of the survey and the Satisfaction module were developed by Workforce Board research and communications staff with guidance and approval from Workforce Board Members and co-sponsors, AWB and WCCE.

In addition to contracting with Ivy for the list of business contact data, the Workforce Board also procured the services of Pacific Market Research, LLC (Pacific) to administer the survey. The Workforce Board then supplied a draft survey instrument to Pacific, which provided input and consultative design through an iterative process across all data collection modes. The average survey length was 15.5 minutes. However, the length of the questionnaire varied for specific subgroups. The questionnaire included a mix of open and closed ended style questions and followed different logical branching patterns. For example, respondents that did not have job openings were not asked what kind of challenges they had in filling recent positions given that they did not have recently open positions to be filled.

Three separate treatments of the questionnaire were developed. One for each data collection mode: Online, Mail (which only contained the Needs and Practices module) and Telephone. The web version of the questionnaire was formalized first, followed by mail and then telephone.

Once the web questionnaire was finalized, Pacific programmed the survey for online administration. Following finalization and Workforce Board approval of the web program,

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<sup>4</sup> Employment Security Department, Washington State. “Covered Employment (QCEW): 2018 annual averages, revised”. <https://esd.wa.gov/labormarketinfo/covered-employment> accessed September 2018.

the mail and telephone questionnaires were finalized and programmed for mail data entry and computer aided telephone interviews (CATI) executed in parallel paths with the facilitation of the printing and mailing process.

## **Survey Administration**

While administering the survey, sample criteria were used to screen and confirm that respondents:

1. Had more than two employees based in Washington State.
2. Confirm that the respondent was responsible for or aware of company hiring and training practices and needs, such as a hiring manager, HR representative or senior executive.

The sample frame was then stratified as evenly as possible from the random sample of employers by workforce development areas to achieve a sufficient level of representation from employers in lower populated areas, with lower populated areas receiving a higher intensity of follow-up efforts through various survey administration modes like CATI. Otherwise the response rates would likely be dominated by King, Snohomish, and Pierce counties – potentially leaving too small a response sample for analyses to be developed for lower density areas. To implement stratification and contain costs, the survey was administered using multiple modes of engagement, beginning with lowest cost touchpoints:

1. An email blast was sent out to employers that had a valid email address within the sample (28%). The email contained both a link to the online survey (both Needs and Practices, and Satisfaction modules) as well as a call back number to take the survey over the phone if they wished. Each employer was assigned a unique pin for them to enter into the online survey for tracking survey response. Two reminder emails were later sent over the following two weeks.
2. Next, a postcard containing a phone number and link to the survey with a unique pin was mailed out to sample addresses lacking an email, asking them to respond to the survey online. This served two purposes, 1) verifying a valid mailing address, and 2) providing another opportunity for the employers to be made aware of the survey and have a chance to respond using convenient, yet lower cost data collection options.
3. A paper version of the survey was then mailed out using business reply mail to those who did not respond to the postcard. The paper version also contained a phone number and link to the online version of the survey using a unique pin.

4. Those who were sent but did not respond to the email invitation, and those who were sent but did not respond to the mail survey, were subsequently contacted for survey completion by CATI.

Those who responded to the mail survey and qualified for the Satisfaction module were asked if they would agree to be contacted again for a quick five-to-seven-minute follow-up phone call. Of those completing the mail a total of fifty (14%) agreed to be called back, and of those fifty mail respondents, fourteen were successfully contacted and completed the satisfaction portion of the survey.

The decision to keep the mail questionnaire limited to Needs and Practices was valid. Had the satisfaction module of the survey been included in the mailing, the length and complexity of the paper survey would have resulted in far fewer returns of the Needs and Practices portion of the survey as evidenced by past survey administration tactics, as well as. The web and CATI version contained dynamic branching, which makes the survey easier to take as irrelevant question skipping is automated. It should be reiterated that the Needs and Practices module of the survey was a major focus of the survey redesign effort.

Although the goal was to exclude all employers with less than two employees by screening during the contact-list procurement process, further screening via telephone and mail returns indicated that under a third (30%) of the sample records were actually employers with less than two employees, and were therefore dropped for not meeting the necessary screening criteria (refer to **Table 1: Mode of survey administration for the sample frame**). The number of incidences was randomly distributed. As a good faith effort to compensate for this high incidence rate, Ivy provided an additional random sample of 1,428 employer email contacts for a supplemental round of email blasts to help offset both less than expected valid emails, 28% actual versus the initial 50% estimate provided by Ivy, and the high number of employers with less than two employees. However, this supplemental email group did not receive postcard, mail, or phone call follow-up due to cost and timeline constraints.

**Table 1: Mode of survey administration for the sample frame**

<u>Survey Mode</u>	<u>Records</u>	<u>Percent of Records</u>
Email	8,453	27%
Email (supplemental)	1,428	5%
Mail	20,663	66%
Phone only	850	3%
Total	31,394	100%

Employers with less than two employees were screened out, along with refusals and incompletes from the sample response (refer to **Table 2: Sample response characteristics**).

The survey would have had an 8.4% response rate, which was similar to past surveys, had the prevalence of incidents been lower.

**Table 2: Sample response characteristics**

	<u>Count</u>	<u>Percent of Reponses</u>
Valid Completions	1,765	67%
Refusals	73	3%
Less than two employees	795	30%
Incompletes	14	1%
Total	2,647	

### Needs and Practices Module Response Rates

The substantial lack of valid email addresses resulted in more resources being spent on the CATI survey mode to attain the desired response rate. As a result, the survey project budget was unable to capitalize on the first-stage sampling as intended, which put increased resource strain on the other survey modes. To keep costs within budget, the decision was made to not pursue 4,241 randomly selected contacts from Snohomish, King, and Pierce counties that did not include a valid email address. The rationale for this was to ensure adequate representation through follow-up efforts by Pacific to boost completion rates for lower population areas such as Benton/Franklin and Eastern Washington.

A total of 1,765 surveys were completed yielding a final response rate of 6.5% from a final sample of 27,153. The margin of error is +/- 2.33% at the 95 percent confidence level, assuming a normal distribution with 50% sample proportions; meaning that if the survey was resampled and administered again using the same methodology, 95% of the time the respondents would poll similarly on average as per the law of large numbers.

$$z \times \sqrt{\frac{\hat{p} \times (1 - \hat{p})}{n}} \rightarrow 1.96 \times \sqrt{\frac{.5(1 - .5)}{1,765}}$$

Where:

$\hat{p}$  = sample proportion

$n$  = sample size

$z$  = z-score

Originally, a stratified sampling plan with a goal of  $n \approx 250$  in each of the twelve WDAs was targeted, but ultimately not achieved due to higher-than-expected incidence rates.

Nonetheless, survey responses across these regions are sufficiently large for polling purposes (refer to **Table 3:** for Survey responses by Workforce Development Area).

**Table 3: Survey responses by Workforce Development Area**

	<u>Used Sample Total*</u>	<u>Completed Survey</u>	<u>Percent</u>
Benton/Franklin	989	75	7.6%
Eastern Washington	976	78	8.0%
North Central	1,275	100	7.8%
Northwest	2,179	167	7.7%
Olympic	1,746	115	6.6%
Pacific Mountain	2,276	177	7.8%
Seattle - King County	6,052	296	4.9%
Snohomish	2,732	150	5.5%
South Central	1,444	110	7.6%
Southwest	2,298	163	7.1%
Spokane	2,232	190	8.5%
Tacoma - Pierce	2,954	144	4.9%
Total	27,153	1,765	6.5%

*\*Unused King county=3,837, Snohomish county=105 and Pierce county=299, a total of 4,241.34 sample records were excluded due to insufficient email contact information*

### Satisfaction Module Response Rates

The satisfaction section asked respondents if they hired any employees in the last 12 months from each of the twelve Workforce Development Areas. A total of 566 (32%) respondents responded to at least one program or workforce engagement area in the satisfaction section. Prior to data collection efforts, it was known that several of the programs were not commonly used, and as such, generalizable satisfaction levels and program penetration rates of employers hiring participants from these programs would be limited. The Workforce Board sought an additional sample list to supplement satisfaction levels for programs that were known to have small populations, such as those under WIOA Title I, WorkSourceWA, WorkFirst, the Department of Vocational Rehabilitation, and the Department of Services for the Blind.

The Business Services team at the Employment Security Department was able to provide a small supplemental contact-list of employers working with WorkFirst, but unfortunately the response counts were too low to reliably estimate satisfaction levels with the program (refer to **Table 4:** Total respondent counts by Workforce System engagement area). No other supplemental contact-lists were provided, and as a result, employer satisfaction of

new hires coming from the Department of Vocational Rehabilitation and the Department of Services for the Blind programs could not be estimated.

**Table 4: Total respondent counts by Workforce System engagement area**

<u>Workforce Engagement Area</u>	<u>Count</u>
High school career and technical education programs	123
Community or technical college career focused certificate or degree programs	178
Workforce Office or Workforce Investment and Opportunity Act (WIOA Title I) training programs*	20
Private career or technical school programs	79
Apprenticeship programs	38
Adult Basic Education Classes, such as GED or English as a second language programs	89
Four-year college and university degree programs	244
WorkSourceWA.com, Washington’s official site for online employment services	48
WorkFirst programs*	16
Division of Vocational Rehabilitation Services*	13
Programs under the Department of Services for the Blind*	2

\* Satisfaction estimates with response counts of  $n < 32$  are too small for statistical estimation of the population mean

There were two follow-up sections to the Needs and Practices section of the survey. Besides looking at workforce engagement areas, or programs, the second section asks broader questions about Workforce System services used in the past three years. One service is more widely used than all others listed: finding and hiring employees, with 11% of total respondents answering this question. This is twice as many as the next highest response for employers using workforce system services. As with the program satisfaction section, some services are less used and would benefit from a supplemental survey that targets a list of known employers using these workforce system services to better gauge satisfaction. This would be a separate, non-randomized study. However, such supplemental contact-lists would not provide a generalizable estimate of service penetration rates and satisfaction among employers at large given its non-random nature (refer to **Table 5**: Total respondent counts by Workforce System services).

**Table 5: Total respondent counts by Workforce System services**

<u>Workforce Services</u>	<u>Count</u>
Finding and hiring workers	199
Accessing training for employees	44
Supporting employees with non-skills related barriers, such as transportation, childcare needs, requiring assistive technology, or other accommodations	58
Accessing current occupational wage information, and occupational/industry employment forecasts	93
Developing workforce practices and policies, such as talent pipeline development and succession planning	55
Collaborating with the State Workforce System on Career Connected Learning*	20

**Response Rate Expectations Versus Results**

Pacific’s original assumptions were that the employer list would contain an email contact for about half the sample with an expected response rate of at least 3% for this online mode based on their past experiences with survey efforts. Ultimately just over one quarter, 28%, included an email address. For the approximately one half of the sample receiving invitations to participate through the mail, the survey administrator anticipated a response of at least 7% by mail and at least 4% completing online. The number of phone completes was reevaluated half way through the data collection period when it was clear they were not seeing the mail response rate that was originally anticipated. Increased emphasis using the CATI survey mode resulted in a doubling of responses to 1,240, up from the planned 720 (refer to **Table 6: Response rate work plan estimates versus actual**).

**Table 6: Response rate work plan estimates versus actual**

<u>Survey Mode</u>	<u>Sample Size</u>	<u>Response Rate</u>	<u>Response Count</u>
Email			
Planned	15,000	3%	480
Actual	9,881	1.3%	128
Mail			
Planned	15,000	12%	1,850
Actual	15,000	3.3%	498
Phone			
Planned	6,700	10%	670
Actual	21,721	5.2%	1,139
Total			
Planned	27,721	10%	3,000
Actual	27,153	6.5%	1,765

## Weighting and calibration

Pacific provided the Workforce Board with the raw response and non-response data following the administration of the survey. A simple non-response adjustment (*NRA*) weight based on WDA was then calculated to realign the response sample frame with the original sample. The decision to only use WDAs for non-response weighting was primarily driven by small cell sizes of the few known characteristics of non-respondents. For example, a logistic regression-based adjustment on multiple characteristics, such as industry classifications, contact details, and WDA would likely amplify noise due to limited degrees of freedom. The same issue would also arise if the sample was broken into cells by a broad cross-classification of groups, such as industry by region. An adjustment factor for each employer (*i*) by region as the inverse of the plain response weight was therefore used:

$$f_{region_i}^{NRA} = \frac{\text{Sample size by region}}{\text{Sample response by region}}$$

Assuming a one-stage cluster sampling design, the weighted response data was then fed into a jackknife resampling algorithm using a package developed for R. R is a statistical programming language<sup>5</sup> which calculates *n* sample mean estimates by sequentially dropping *one* observation from the sample to estimate the mean for the remaining *n* – 1 observations. This resulted in 1,764 estimates, which were then aggregated into the jackknife estimate. This method is used to estimate bias and the standard error, which is then used to correct for that bias by essentially limiting the influence of outliers. This procedure produces a more conservative estimate while increasing the standard error but is generalizable to any distribution.

However, concerns were raised with the resampling method because it did not take into consideration the complex, multi-stage stratified sampling approach using different survey modes, e.g. web, mail, phone. This is a valid concern because it could introduce bias given a greater emphasis on follow-up efforts for smaller WDAs. A rescaling bootstrapping method, sometimes referred to as a Rao-Wu Bootstrap, was instead deployed because it retains the same robust features of the Jackknife but is more suitable for complex surveys with small subsets of observations such as this one.

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<sup>5</sup> Statistics were calculated using R 3.5.1 (R Core Team, 2018), and the 'survey' (v3.39 Thomas Lumley, 2019) package, "Analysis of Complex Survey Samples".

The rescaling bootstrapping algorithm<sup>6</sup> resampled each stratum independently by simple random sampling with replacement many times over. The estimate for each resampled cluster is properly scaled such that the resulting variance estimator reduces to the standard unbiased variance estimator in the linear case<sup>7</sup>, such as the one-stage Jackknife.

The benefit of this approach is that the confidence intervals surrounding the estimation consider the skewness of the distribution, unlike the intervals based on a normal approximation. This bootstrapping method is common practice for complex survey designs, which produces adequate variance estimates when sample sizes are small, which is often the case with complex designs like this survey.<sup>8</sup>

A simple tabulation of the weighted bootstrapped survey data may still result in a mismatch between the characteristics of the employers responding to the survey, and those of the general population of employers. Any findings from such survey results could be misleading. Additional steps were therefore needed.

Following the rescaling bootstrap procedure, the response data was calibrated using a technique called *iterative proportional fitting* i.e. 'raking'.<sup>9</sup> This type of calibration is necessary to achieve representation of firms with different known characteristics. For example, suppose the composition of the general population was known to be 50% male, and 50% female, with the ages of both genders known. If a survey was used to determine their opinions on a certain matter, but the response characteristics skewed older and more female, the opinion polling may be biased towards that group. Raked calibration weighting addresses the problem of unequal probabilities of selection by algorithmically replicating lower represented groups until the marginal proportion of the survey respondent characteristics converges with that of the general population.<sup>10</sup> However, the characteristics of the general population must be known.

Aggregate industry data from ESD's Labor Market and Economic Analysis division was used to provide a proportion of what the general population of employers looked like along certain dimensions: WDA region, firm size, and industry classification by goods-producing and service-providing establishments. These proportions were used to

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<sup>6</sup> Statistics were calculated using R 3.5.1 (R Core Team, 2018), and the 'survey' (v3.39 Thomas Lumley, 2019) package, "Analysis of Complex Survey Samples".

<sup>7</sup> Rao, J. N. K. and Wu, C. F. J, "Resampling Inference with Complex Survey Data", Journal of the American Statistical Association, Vol. 83, 1988, Issue 401, pages 231-241.

<sup>8</sup> Girard, Claude, "The Rao-Wu Rescaling Bootstrap: From theory to practice", Statistics Canada.

<sup>9</sup> Statistics were calculated using R 3.5.1 (R Core Team, 2018), and the 'survey' (v3.39 Thomas Lumley, 2019) package, "Analysis of Complex Survey Samples".

<sup>10</sup> Kolenikov, Stanislav, "Calibrating Survey Data Using Iterative Proportional Fitting (raking)", StataCorp LP.

calibrate the marginal proportions of the survey respondents until they converged on the general population.

An important point to keep in mind is that the sample sizes for each group must be sufficiently large. Otherwise, the raking algorithm could be replicating individual respondents who are more peculiar in some unusual way compared to their peers. To prevent this, weights were trimmed to prevent an observation from being replicated more than three times.

Mean estimates with small sample counts will have large standard errors resulting in less precision around the point estimate. Indeed, large response variance in the WDA samples were too wide to draw meaningful comparisons or conclusions. Regional sample responses were therefore rolled up to just eastern and western Washington for analyzing.

### **Method of analysis**

Mean estimates and standard errors of survey responses were tabulated for each sub-group (refer to **Appendices A, B, and C** for survey response tables).

Comparisons of different opinions and responses between sub-groups, such as small versus medium- and large-sized employers were conducted via t-test and logistic regression. One-sample Student's t-tests were used to determine statistically significant differences in means within a 95% confidence interval. Estimating mean differences in responses between eastern and western Washington, and between service-providers versus goods-producers were largely inconclusive. With a few exceptions, there appear to be no real differences between the opinions of employers across these two dimensions. However, differences between more narrowly defined sub-groupings, such as WDAs and industry sectors, most likely exist. More observations are required to confirm this.

Relationships comparing response patterns were also explored. A generalized linear model, in this case a quasi-Poisson regression, was used to determine if certain survey responses could be used to predict outcomes of some workforce challenges. This particular model was chosen because of the binomial nature of survey responses, e.g. predicting yes/no answers within a 95% confidence interval for predictive variables.

A stepwise regression was used to develop a parsimonious model that predicted outcomes with as few predictor values as possible. Two hypotheses were explored:

1. Do employee benefits, and combinations of benefits, predict certain workforce challenges for employers?

2. Do certain actions, or combinations of actions, predict helpful outcomes for employers with respect to certain types of workforce challenges?

## Limitations

As with any survey, the issue of selection bias cannot be ignored – and it may be that employers that participate in such surveys are inherently different from the population at large. Moreover, the characteristics of non-respondents are unknown, although bias in the variance of responses across modes is accounted for in the bootstrapping method and then raked.

Response bias in the satisfaction section of the survey may exist. For example, respondents tend to gravitate towards extreme answers on a one through five Likert scale. Acquiescence bias or, *yea-saying*, may also exist, as respondents also tend to be agreeable. Moreover, employers that have engaged with the workforce system in the past may be more likely to respond. However, acquiescence bias can be more limited when a third party administers the survey, and not the survey sponsor, which is how this survey was administered.

A higher than expected incidence rate, i.e. observations that had to be removed due to bad employer contact data, resulted in a smaller sample frame than what was considered during the design phase of the project. This reduced the viable response frame by 30%. This problem was compounded because the survey was administered using multistage cluster sampling, which is an effective means to contain survey costs given a large geographically dispersed population, such as employers in Washington, and more likely to provide a sufficient response frame across areas of interest. However, the use of multiple clusters results in smaller sample sizes than a single randomized cluster from an equal number of total observations. This reduced the accuracy of the point estimates, which made comparing differences between sub-groups inconclusive in some cases given the large margin of error. Comparisons across WDAs and industry sectors could therefore not be made. However, the data was rich enough to provide valuable insights across employers of different sizes, service-providers versus goods-producers, and between eastern and western Washington at the state level.

Finally, these findings should be interpreted with a degree of nuance, as they are based on individual responses of hiring managers, HR representatives, or senior executives. Furthermore, the survey data lacks the sample size resolution to examine narrowly defined cross-cutting subsets, such as 'medium-sized manufactures in eastern Washington'. Statistically significant generalities and comparisons can only be made between the

regions of eastern and western Washington; between manufacturers and service-providers; and between employer sizes in terms of employee count.

### **Improvements for future survey efforts**

Employer contact data was procured through a competitive bidding process. However, given the considerable time, effort, and cost that goes into this kind of survey, it may be more effective, and lower risk, to procure the data based on a 'best-in-class' as opposed to an open, competitive process. Ideally, employer contact information could be taken directly from state records, although this option is not permissible under current data governance policy.

In addition, a considerable amount of time went into re-structuring and formatting the raw survey data into a statistically workable file. Future survey efforts should provide a template for how the survey administrator is to prepare the data prior to submission.

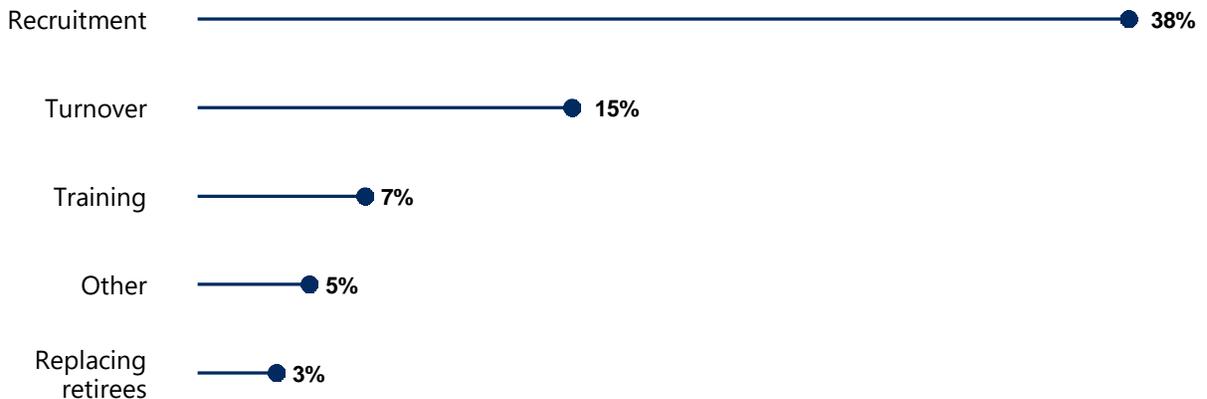
Finally, if resources permit – a third party peer review service should be procured to help improve the survey design and methodology. This survey builds upon past efforts by thoroughly documenting the process and methodology. This current methodology should serve as a foundation for future efforts, with the goal of crafting a standard procedure. Moreover, these surveys must be routine and reliable, as per statute, in order to better serve and engage with employers by providing the State Workforce System the insights and information it needs to better understand its customers and improve upon service delivery.

## Survey Findings

Almost 70% of Washington's 200,000+ employers with two or more workers experienced workforce challenges in the past 12 months.

### Washington's Biggest Workforce Challenges

*Identified by percent of employers*



Source: Workforce Training and Education Coordinating Board, Employer Workforce Needs & Practices and Satisfaction Survey (2020)

### Finding and hiring qualified job candidates

Finding and hiring qualified job candidates, i.e. recruitment, is the most common challenge for employers across the state. The problem is more common for certain types of employers. For example, 12% more manufacturers than service-providers, on average, reported finding and hiring qualified candidates as their biggest workforce challenge.

There were no significant differences in the frequency of employers reporting this challenge by region or size, although the data reveals differences in lost business due to these challenges.

## Recruitment is the Biggest Workforce Challenge in Washington

Identified by percent of employers by industry (showing standard error of the mean)

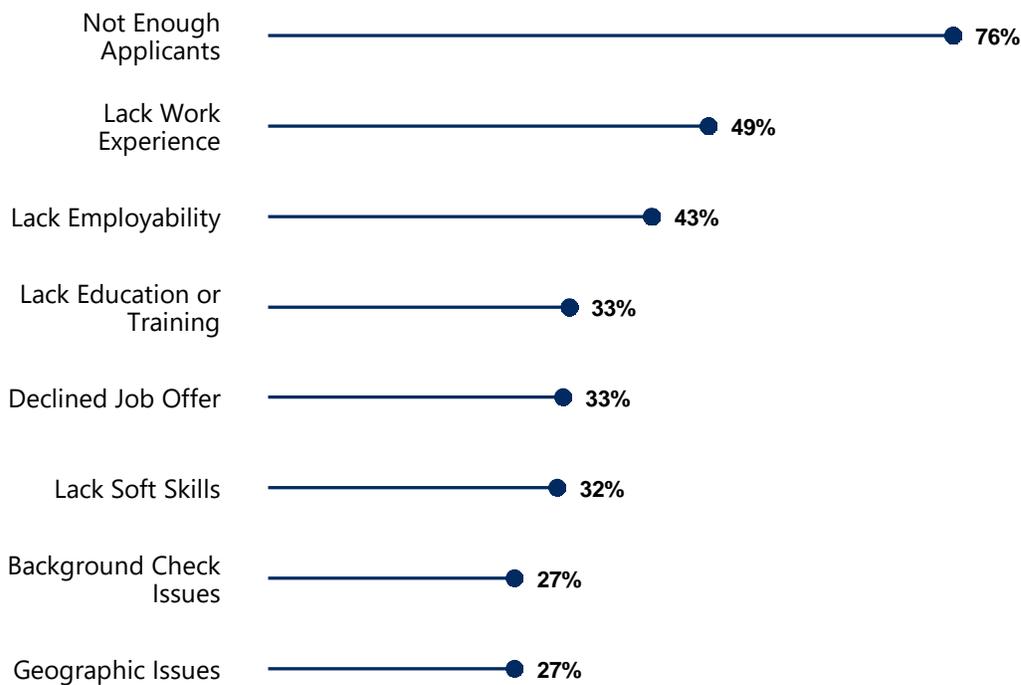


Source: Workforce Training and Education Coordinating Board, Employer Workforce Needs & Practices and Satisfaction Survey (2020)

The most common underlying reasons for why employers find recruitment difficult are rooted in the availability of skilled and experienced talent.

## Underlying Reasons for Recruitment Difficulty

Identified by percent of employers



Source: Workforce Training and Education Coordinating Board, Employer Workforce Needs & Practices and Satisfaction Survey (2020)

The survey data yields little distinction in how different employers perceive what reasons underlie the difficulty in finding and hiring qualified candidates. Nonetheless, a few small differences do exist.

Medium-sized and large employers cited 'declined job offers' 16% more often than small employers. This is plausibly related to compensation packages. For employers that experience workforce challenges, those that do not provide a benefits package are 33% to 43% more likely to report declined job offers.

Small employers reported a lack of soft skills as a recruitment barrier 7% more often than larger employers on average. This is an interesting insight, as teamwork ability is arguably more sought after in small, closely knit organizations.

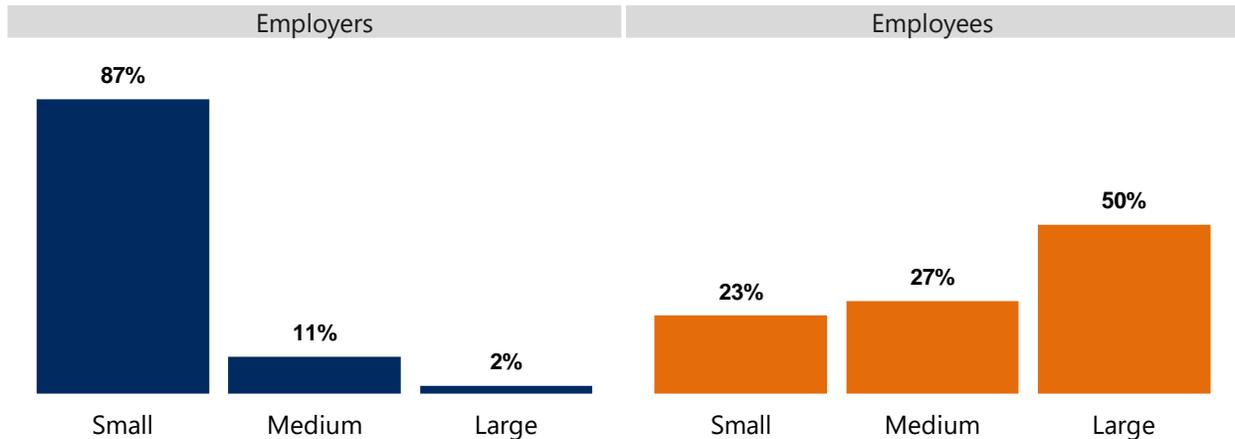
### *Pain-points*

The proportion of small employers – those with fewer than 20 employees – which reported turning down new business opportunity due to recruitment as their biggest workforce challenge was 6% higher, on average, than medium-sized employers with 20 to 99 employees, and 11% higher than large employers with 100 or more employees. This discrepancy is concerning because small employers account for one-fifth of Washington's workforce, with half of the workforce working for either small or medium-sized employers. Presumably their smaller scale and lack of alternatives leave smaller employers with fewer options.

No statistically significant differences in forgone business were found between manufacturers and services providers, or between regions. In other words, the frequency of employers identifying recruitment as their biggest workforce challenge does not necessarily translate into how severely the issue is experienced.

## Composition of Washington Employers

*By percent of total employers and employees*

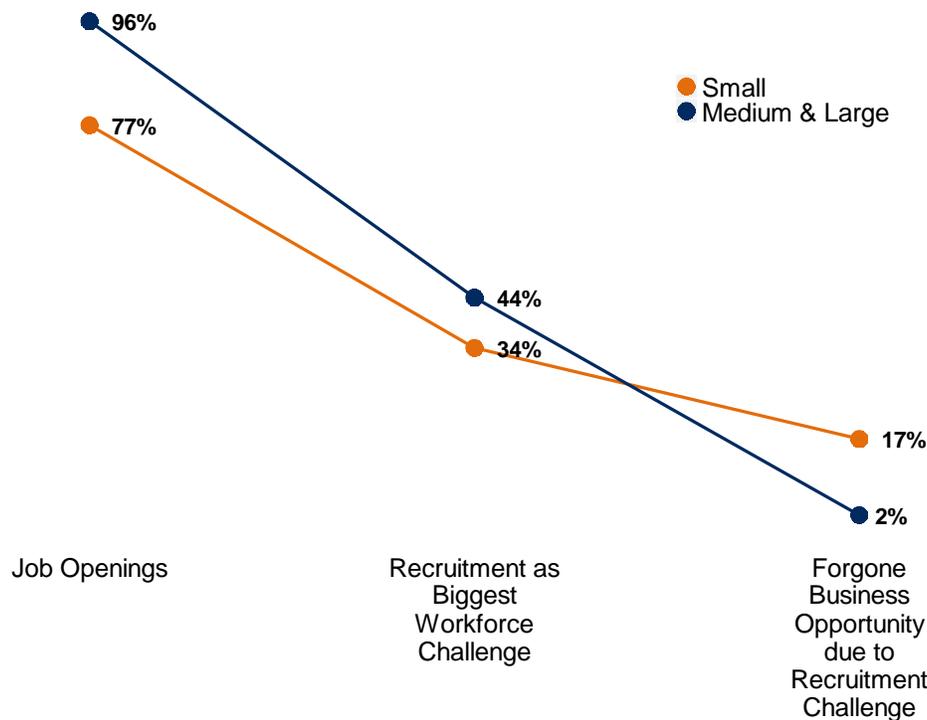


Source: Washington Employment Security Department, Establishments by Size (2018), analyzed by Washington's Workforce Board

While most businesses in Washington are of the smaller variety, half of all workers are employed with large firms. The difference in forgone business opportunity due to recruitment challenges between employer sizes may be linked to the availability of resources, or to the effectiveness and types of responsive actions taken by these employers. For example, 62% of small employers had job openings in the past 12 months; a strong indication that they hire less frequently than the 80% of employers that did on average over the same period. Less frequent hiring may not warrant dedicated resources for recruitment and may also limit the experience related to recruitment. Small employers are just as likely as larger employers to report finding and hiring qualified candidates as their biggest workforce challenge, but hired less frequently, and are considerably more likely to turn down new business if unable to hire talent in time.

## Forgone Business when Recruitment is the Biggest Workforce Challenge

Identified by percent of employers with job openings by size



Source: Workforce Training and Education Coordinating Board, Employer Workforce Needs & Practices and Satisfaction Survey (2020)

Anecdotal evidence further supports these findings. According to one employer,

*"Owners end up doing the work ourselves, due to a lack of employees... [resulting in] increased wait times for customers".*

Another stated,

*"During times of vacancy, as a small business, we all have to chip in and cover [multiple] job duties".*

### Effective Responses

Recruitment is a mission critical task for employers of all sizes; and employers that reported increased recruiting efforts were 64% to 72% more likely to report an improved outcome in response to hiring challenges than those that did not. This finding may appear simplistic and self-evident, but all these reactive actions contain a cost. For example, some employers may lack the resources to boost their recruitment efforts to overcome this challenge. Hence, increasing recruitment effort in response to recruitment challenges is

not a straightforward solution. The emphasis should be on whether such an option is possible for some employers, and if so, what would this effort look like?

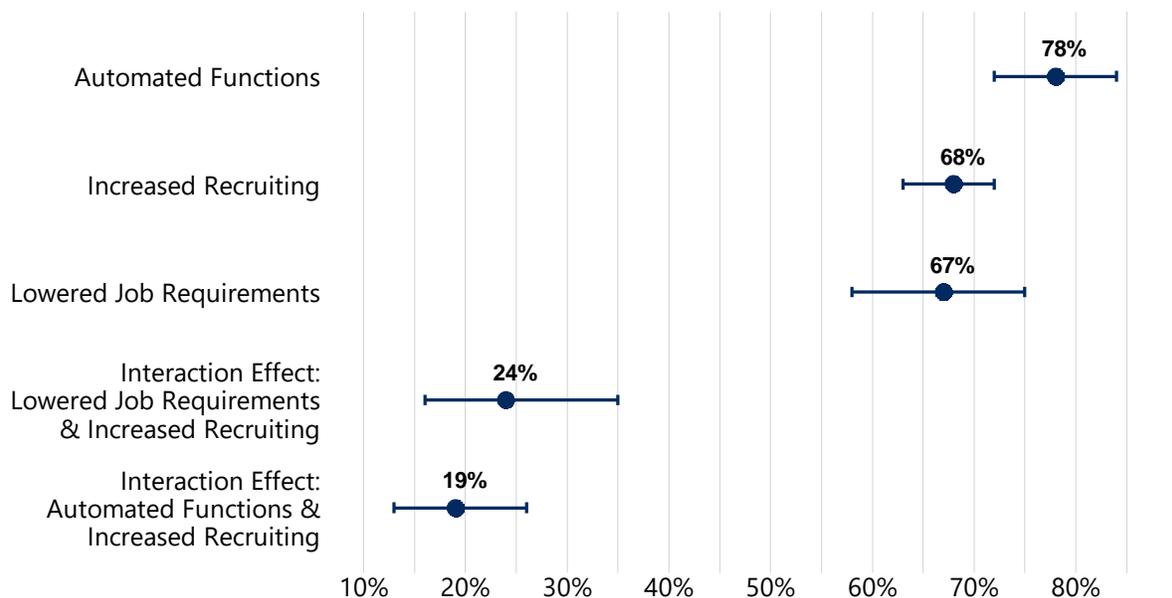
Automating job functions was also effective, where employers were 71% to 84% more likely to report an improvement following the action. Automating job functions, which requires investment and expertise, had synergistic effects with recruitment, increasing the probability of a reported successful outcome by an additional 14-25%. One employer added,

*"[As a result, we've become] more efficient in manufacturing abilities".*

Lowering the job requirements was another statistically significant action that increased the probability of employers reporting a successful outcome by 60% to 74%. In conjunction with increased recruiting efforts, employers were an additional 16% to 34% more likely to report a successful outcome. Lowering job requirements may alleviate recruitment challenges in the short-term but may also necessitate greater emphasis on training down-the-road. A multi-pronged strategy could be highly effective given the necessary resource commitment. Benefits versus costs should be carefully considered.

### Helpful Actions in Response to Recruitment Challenges

*By percent probability of employers reporting a successful outcome (showing standard error of the mean)*



Source: Workforce Training and Education Coordinating Board, Employer Workforce Needs & Practices and Satisfaction Survey (2020)

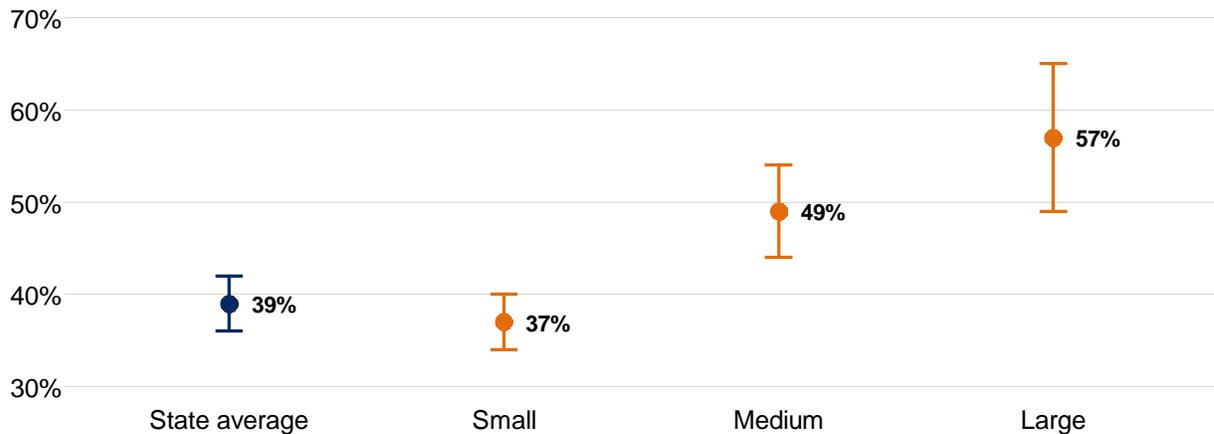
The effectiveness of reported actions that bore no statistically significant effect on predicting outcomes are telling. For example, 28% of employers reported revising their pay and benefits to address recruitment challenges. However, the data is unclear if this action increased the likelihood of an effective outcome. This is because there are different facets of recruitment related challenges. The predictive power of these findings is only valid for the overall broad challenge of recruitment. Unfortunately, the sample is too small to examine the effectiveness of this action when constraining the analysis to employers that experienced turned down job offers. It is reasonable to assume that this action would be effective for this subgroup, especially given the correlation between employers not offering benefits and experiencing turned down job offers.

This finding is further supported by other data from the survey, as there appears to be no strong correlation between reported employee benefits and recruitment challenges. One would expect a negative relationship between the two, such that employers with less generous benefits would attract fewer candidates. A potential explanation for this is that benefits are so sufficiently standardized as to be a common denominator. Nonetheless, it is imperative to keep in mind that these survey results capture what employers *think* works as opposed to any empirical outcomes.

Overall, about 40% of employers that identified recruitment as their biggest workforce challenge reported a successful outcome irrespective of the action taken. However, 13% fewer small employers on average reported a successful outcome compared to medium-sized and large employers. This is a key insight that could inform how the state workforce system prioritizes employer engagement. For example, employers of different sizes might require different solutions to address a similar problem. This becomes especially apparent when exploring *how* employers of different sizes find and hire qualified candidates.

## Frequency of Helpful Outcomes when Recruitment is Biggest Challenge

*Identified by percent of employers by size (showing standard error of the mean)*



Source: Workforce Training and Education Coordinating Board, Employer Workforce Needs & Practices and Satisfaction Survey (2020)

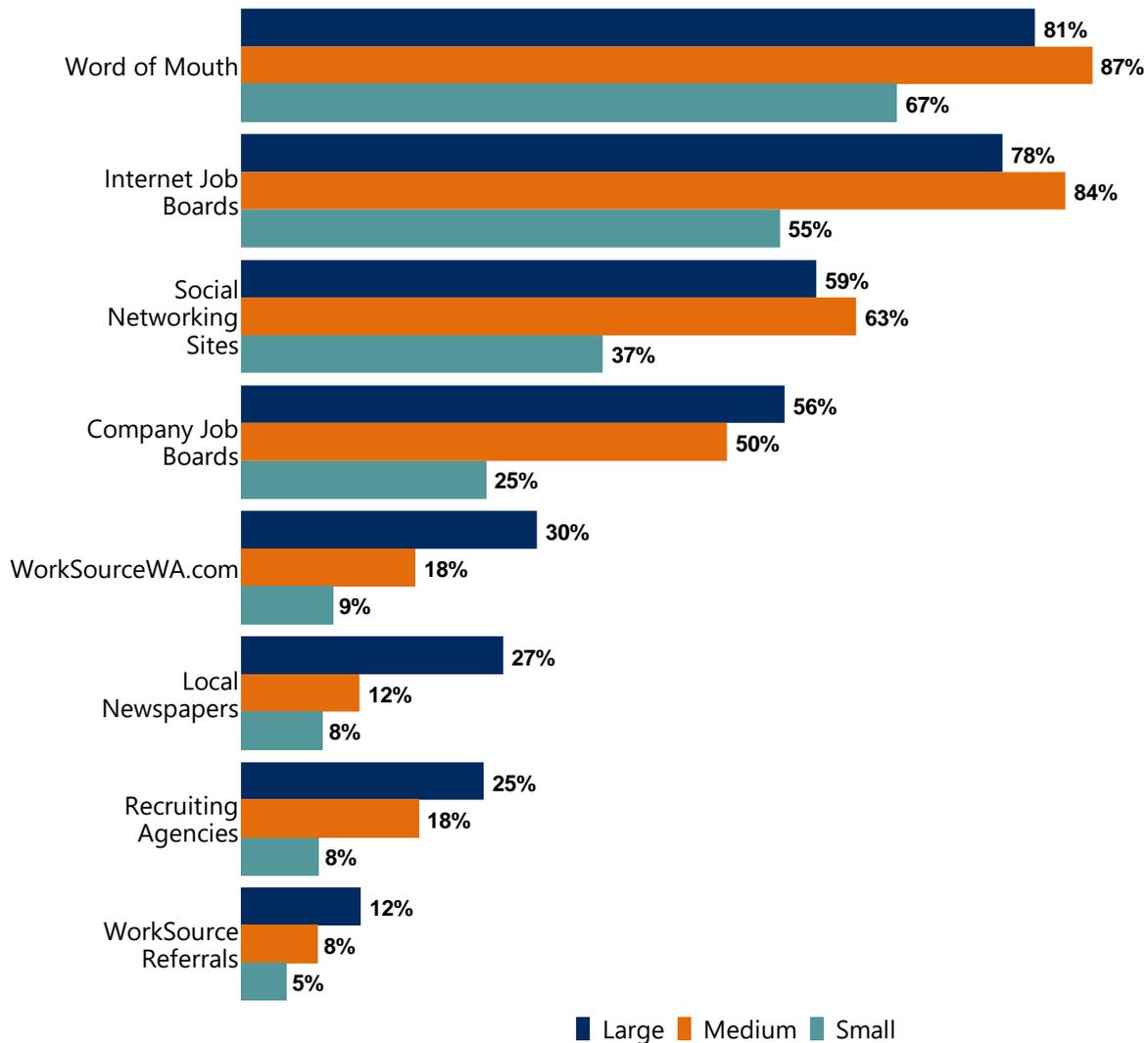
### Recruiting tactics

Employers have various means available to signal job openings and attract talent. The most common being word of mouth. But other means, such as posting jobs online, or through a company website, are also frequently used. Small employers reported using fewer tools to advertise openings on average for each category, a strong indication that small employers have a narrower suite of tools than larger employers, and they presumably rely more on word-of-mouth. This could be a significant factor limiting effective recruitment for small employers given their options are more limited due to resource constraints.

Small employers were also less engaged with state workforce system services, such as posting jobs on WorkSourceWA.com or receiving referrals through WorkSource Offices.

## Common Recruitment Tools in Washington

*By percent of employers using tools*



Source: Workforce Training and Education Coordinating Board, Employer Workforce Needs & Practices and Satisfaction Survey (2020)

Medium-sized and large employers also worked more frequently with public institutions of instruction, such as job fairs hosted by high schools, community and technical colleges, and four-year colleges or universities. However, employers that worked with state workforce system services were no more likely to report that it helped in finding and hiring qualified workers.

Some of the related anecdotal evidence regarding state workforce system recruitment was alarming. One employer commented,

*"[We] used them [WorkSource Offices referrals] years back, had them [the new hire] show up and only work one day."*

Another adding,

*"Too many emails and candidates don't follow up."*

And,

*"[The] majority of responses we received [through WorkforceWA.com] were actually trying to fill their quota of applications for unemployment benefits."*

This later quote may reveal some misunderstanding among employers on how unemployment insurance works and could be an opportunity to educate both employers and workers. For instance, unemployment insurance can only be drawn on for 27 weeks. It is unlikely that those on unemployment can freeload on the system indefinitely. The reality is that they have a limited time to find work before their benefits are exhausted.

Across the board, employers consistently cite a lack of employability and qualifications as a significant recruitment barrier. A point of concern here is that demand for skilled talent is not being sufficiently met for many employers, or at least not being met within certain compensation structures. According to one employer,

*"Our organization does not have the resources to provide extra benefits to maintain good employees."*

That said, analysis of the survey data did not reveal any significant links between non-salary benefits and workforce challenges related to employee turnover and retention.

Although employers and the state workforce system might not be able to directly address issues of employability, such as work ethic, they can address issues related to talent through education, training, and professional development. An employer shared an effective action concerning recruiting entry-level positions,

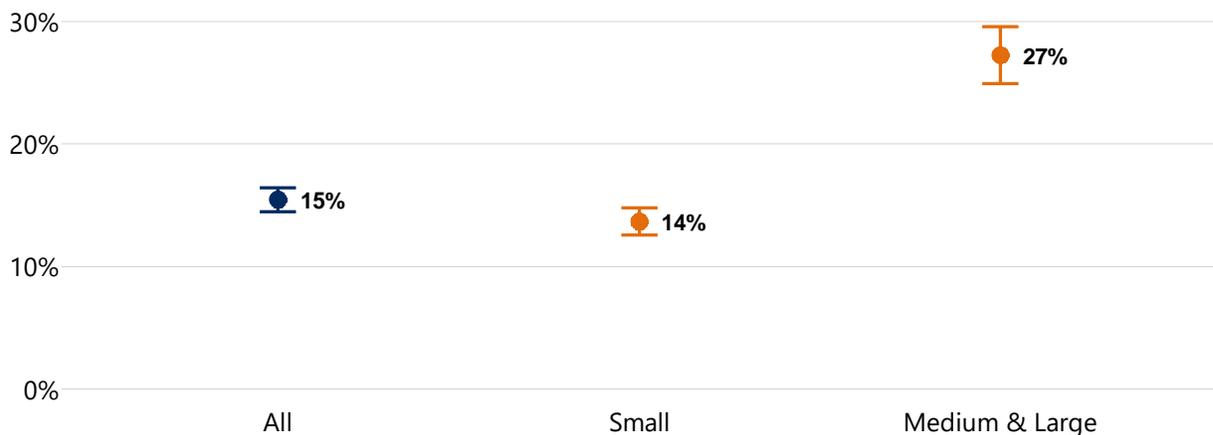
*"[We] established a relationship with a high school".*

## Building and retaining talent

Employee turnover and retention was the biggest workforce challenge for 16% of Washington employers on average. However, the distribution of employers reporting this challenge is highly skewed, with 27% of medium-sized and larger employers identifying turnover as their biggest workforce challenge compared to 14% of small employers. This points to one advantage smaller employers have – their smaller size tends to discourage turnover.

No statistically significant differences were observed between medium and large employers, eastern and western Washington, or between manufacturers and service-providers. However, this does not mean differences in the frequency or severity of the challenge is non-existent. Rather, the sample is too small to precisely discern differences when the mean estimates are close. This limitation can be overcome as future periodic surveys provide more data.

**Frequency of Turnover and Attrition as Biggest Challenge**  
*Identified by percent of employers by size (showing standard error of the mean)*

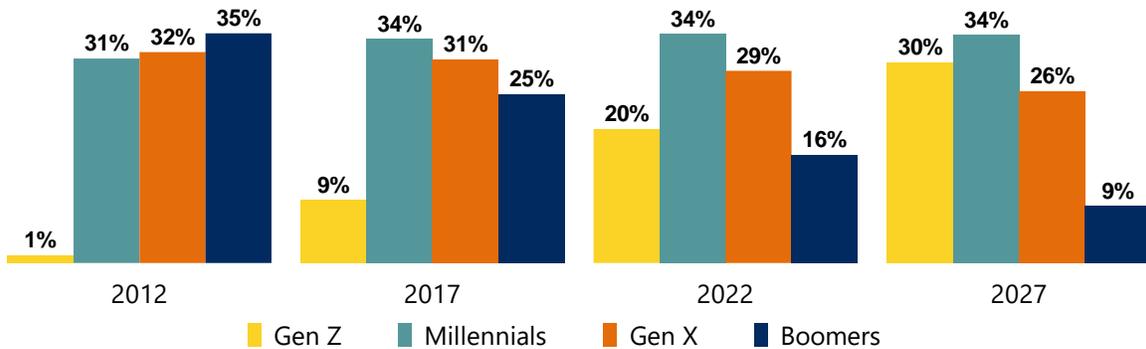


Source: Workforce Training and Education Coordinating Board, Employer Workforce Needs & Practices and Satisfaction Survey (2020)

Another interesting finding was that only 3% of employers found replacing retiring workers was their biggest workforce challenge. This figure was hypothesized to be higher given the public attention on retiring baby boomers. However, this finding does not debunk concerns over an aging population, especially when considering its effects on the healthcare system. The finding provides evidence that a mass exodus of older workers does not appear to have happened in the workforce, just a slow withdrawal as opposed to a cliff.

It is also important to keep in mind that, although this is a less common challenge, it is still a serious concern for about 4,000 employers. Particularly for employers in niche industries that require highly specific skill sets that are not commonly supported in public programs, or no longer supported.

### Washington Labor Force Composition by Generation



Source: WA State Office of Financial Management, Forecast of the State Population (2018), U.S. Census Bureau, 2017 American Community Survey(5-year data), analyzed by Washington's Workforce Board

#### *Pain-points*

11% of employers on average reported turning down new business opportunities due to challenges related to turnover and retention. There does not appear to be any statistically significant differences in the frequency of this issue being reported between employers of the different characteristics, i.e. size, geography, or industry, which were explored in this study. Apropos: absence of evidence is not evidence of absence.

#### *Effective Responses*

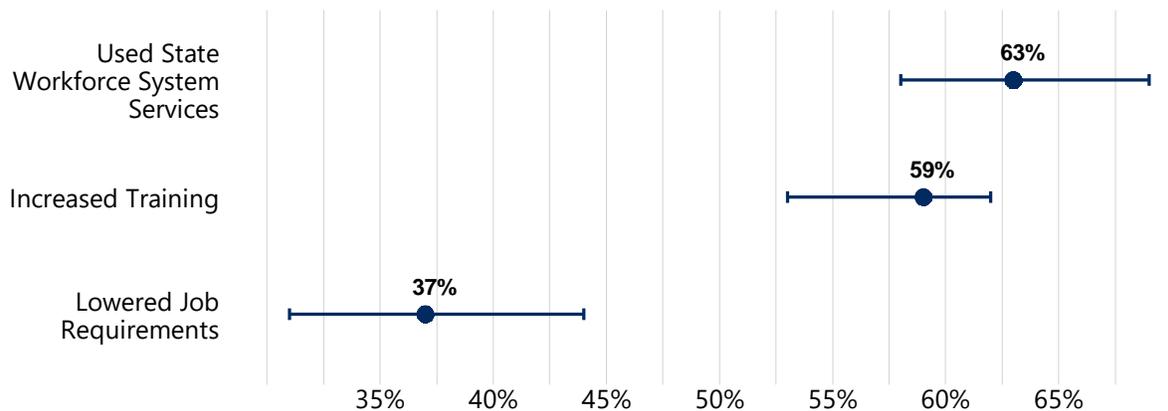
Increased training and professional development activities increased the probability of predicting a helpful outcome in face of turnover and retention by 54% to 62%. However, providing training and professional development is the biggest workforce challenge for 7% of employers.

Lowering job requirements was also predictive of employers reporting a successful outcome. This finding can be interpreted in several ways. Does lowering the job requirements help employers adapt to employment churn by flattening the learning curve for a revolving door of new hires? Or does it improve retention by reducing the demands of the job on workers? More research is needed.

Employers that used state workforce system services – such as working with WorkSource offices, were 60% to 69% more likely to report a helpful outcome when addressing turnover and retention as their biggest workforce challenge. This finding is somewhat nebulous given the broad range of state workforce system services offered. Measuring employer satisfaction levels across these different types of services should provide clearer insight.

### Helpful Actions in Response to Turnover Challenges

*By percent probability of employers reporting a successful outcome (showing standard error of the mean)*



Source: Workforce Training and Education Coordinating Board, Employer Workforce Needs & Practices and Satisfaction Survey (2020)

### Improving Washington’s Workforce System Services

More than 70% of employers have not used state workforce system services in the past three years despite the evidence suggesting that these services can be helpful. This is largely driven by small employers. For example, about half of all large employers have recently used these services. Employer opinions as to the reasons why they do not use these services vary. The most common reason is awareness, where 36% of employers are unaware of available resources. Moreover, there appears to be no significant difference in awareness levels between the employer-characteristics studied. One employer commented,

*“We don't know what the state has to offer.”*

Another issue some employers have is a lack of decision-making authority when it comes to working with state workforce system services. For example, numerous employers cited that such actions must come from corporate headquarters, which are sometimes located outside of the state. This poses an outreach challenge for local workforce development efforts. One employer stated,

*"HR is in Kansas and they don't know about that [state workforce system services]."*

Slightly more than 25% of employers stated that these services do not fit their needs. According to an employer,

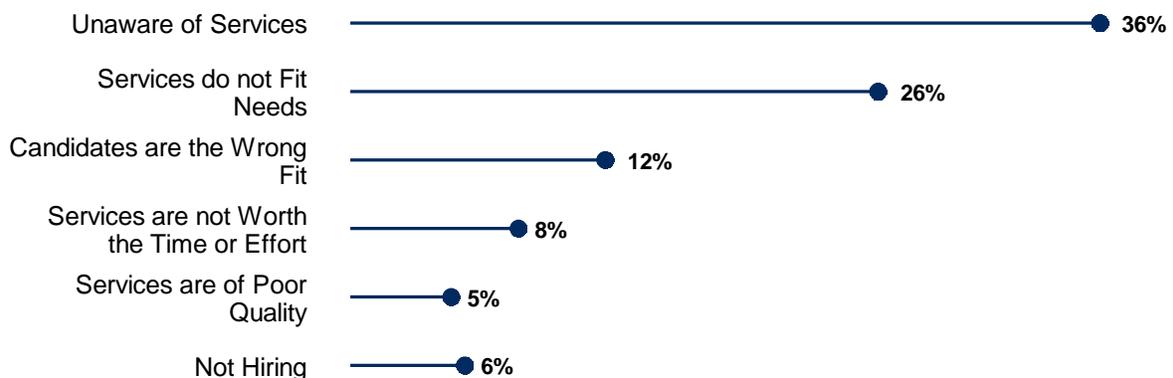
*"The bureaucracy of... state agencies does not keep up with the needs of our industry."*

An additional 6% explained that such services were not needed because they were not hiring.

This later finding suggests that employers may not be fully aware of the full suite of service offerings. These services encompass more than helping to find and hire qualified job candidates. Nonetheless, helping employers find and hire qualified job candidates is a key service that is related to the most common workforce challenge in Washington. 12% of employers do not use this service because they believe job candidates originating from the state workforce system are the wrong fit.

Other reasons why employers are not using these services are more indicative of their perceived quality, or lack thereof. For example, 8% of employers believed using state workforce system services were not worth the time or effort, and an additional 5% cited poor quality of service.

### Opinions of Employers on Why They Do Not Use State Workforce System Services *Identified by percent of employers*



Source: Workforce Training and Education Coordinating Board, Employer Workforce Needs & Practices and Satisfaction Survey (2020)

One employer provided constructive feedback concerning service improvement,

*“State has programs but does not tell you [how] to get into the programs, [we] got lost in the system.”*

However, some criticisms of the state workforce system are probably intractable. With one employer commenting,

*“Less government involved the better; we take care of our own needs.”*

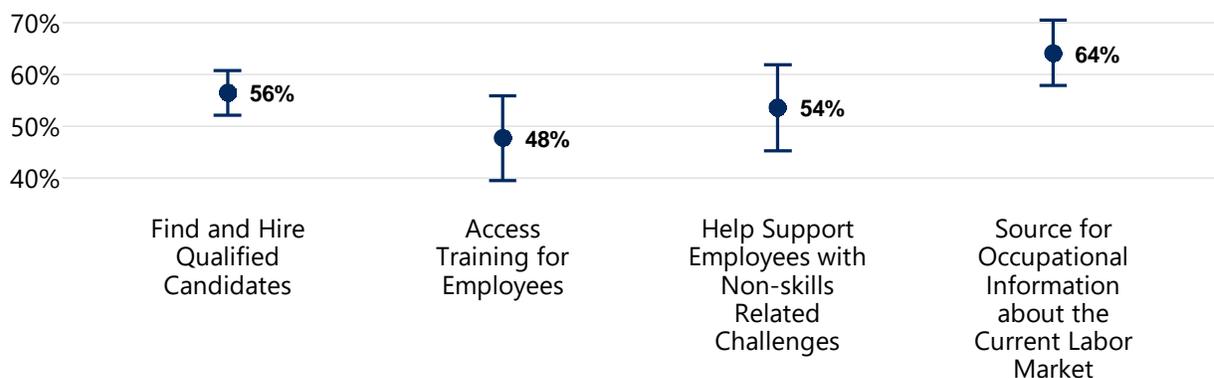
### Service Satisfaction

Employer satisfaction with these services is mixed. Just under half of employers that accessed training for employees through the state workforce system would recommend using them to another employer.

Slightly over half of employers that reported using state services to help find and hire employees would recommend them to another employer. The same was true for employers seeking support services for workers with non-skills related challenges, such as accommodating employees with disabilities.

Satisfaction was relatively high for employers accessing industry, labor, and wage information through state workforce system, with about 65% claiming they would recommend the service to another employer.

**Employers that Would Recommend State Workforce System Services to Another Employer**  
*By percent of employers (showing standard error of the mean)*



Source: Workforce Training and Education Coordinating Board, Employer Workforce Needs & Practices and Satisfaction Survey (2020)

## Appendix A: State Level Survey Results – Needs and Practices

\*Reponses are weighted using iterative proportional fitting to calibrate on region, industry, and firm size.

Percent of Washington employers reporting **benefits provided:**

	<u>Percent</u>	<u>Standard Error of Mean (+/-)</u>
Paid Leave	77%	1%
Health Insurance	58%	1%
Retirement	47%	2%
Other	22%	1%
No Benefits	14%	1%

Percent of Washington employers reporting **types of training provided:**

	<u>Percent</u>	<u>Standard Error of Mean (+/-)</u>
Informal On-the-job Training	92%	1%
Formal In-house Training	50%	2%
Third Party Training	28%	2%
Seminars and Conferences	50%	2%
Self-study and Online Training	51%	1%
Other Types of Training	5%	1%
No Training	2%	0%

Percent of Washington employers reporting **who administers formal training:**

	<u>Percent</u>	<u>Standard Error of Mean (+/-)</u>
In-house Corporate Staff	79%	1%
Private Sector Vendors	37%	2%
WorkSource Offices	4%	1%
Apprenticeships	11%	1%
Community and Technical Colleges	13%	1%
Four-year Universities and Colleges	7%	1%
Other	8%	1%

Percent of Washington employers with **job openings** in past 12 months:

	<u>Percent</u>	<u>Standard Error of Mean (+/-)</u>
Entry-level	66%	1%
Mid-level	40%	2%
Senior-level	19%	1%

Percent of Washington employers with job opening that **hired employees** in past 12 Months:

	<u>Percent</u>	<u>Standard Error of Mean (+/-)</u>
Entry-level	94%	1%
Mid-level	84%	2%
Senior-level	73%	3%

Percent of Washington employers that experienced **difficulty filling job openings** in Past 12 Months:

	<u>Percent</u>	<u>Standard Error of Mean (+/-)</u>
Entry-level	47%	2%
Mid-level	49%	3%
Senior-level	56%	3%

Percent of Washington employers explaining **why job openings were difficulty to fill**:

	<u>Percent</u>	<u>Standard Error of Mean (+/-)</u>
<b>Not Enough Applicants</b>		
Entry-level	73%	2%
Mid-level	72%	3%
Senior-level	78%	4%
<b>Background Check Issues</b>		
Entry-level	23%	2%
Mid-level	13%	2%
Senior-level	8%	2%
<b>Geographic Issues</b>		
Entry-level	24%	2%
Mid-level	23%	3%
Senior-level	26%	3%
<b>Declined Job Offer</b>		
Entry-level	27%	2%
Mid-level	32%	3%
Senior-level	27%	3%
<b>Lack of Education or Training</b>		
Entry-level	21%	2%
Mid-level	40%	3%
Senior-level	38%	5%

<b>Lack of Work Experience</b>	<i>Percent</i>	<i>Standard Error of Mean (+/-)</i>
Entry-level	38%	2%
Mid-level	54%	3%
Senior-level	46%	5%
<b>Lack of Soft Skills</b>		
Entry-level	33%	3%
Mid-level	25%	3%
Senior-level	15%	4%
<b>Lack of Employability</b>		
Entry-level	49%	3%
Mid-level	29%	3%
Senior-level	15%	3%
<b>Other Reasons</b>		
Entry-level	20%	2%
Mid-level	13%	2%
Senior-level	16%	4%

Percent of Washington employers using certain **recruiting resources**:

	<i>Percent</i>	<i>Standard Error of Mean (+/-)</i>
<b>Word of Mouth</b>		
Entry-level	86%	1%
Mid-level	82%	2%
Senior-level	77%	3%
<b>Internet Job Boards</b>		
Entry-level	71%	2%
Mid-level	76%	2%
Senior-level	64%	3%
<b>Company Job Boards</b>		
Entry-level	34%	2%
Mid-level	37%	2%
Senior-level	33%	3%

<b>Social Networking Sites</b>	<i>Percent</i>	<i>Standard Error of Mean (+/-)</i>
Entry-level	49%	2%
Mid-level	50%	2%
Senior-level	40%	3%
<b>Local Newspapers</b>		
Entry-level	10%	1%
Mid-level	11%	1%
Senior-level	11%	2%
<b>WorkSourceWA.com</b>		
Entry-level	14%	1%
Mid-level	10%	1%
Senior-level	10%	2%
<b>Referrals from WorkSource Offices</b>		
Entry-level	6%	1%
Mid-level	4%	1%
Senior-level	4%	1%
<b>Private Career Schools or Vocational Schools</b>		
Entry-level	9%	1%
Mid-level	9%	1%
Senior-level	7%	2%
<b>High School Career and Technical Education Programs</b>		
Entry-level	10%	1%
Mid-level	5%	1%
Senior-level	4%	1%
<b>Community or Technical Colleges</b>		
Entry-level	15%	1%
Mid-level	14%	2%
Senior-level	9%	2%
<b>Four-year Colleges and Universities</b>		
Entry-level	7%	1%
Mid-level	10%	1%
Senior-level	9%	1%

<b>Recruiting Agencies</b>	<u>Percent</u>	<u>Standard Error of Mean (+/-)</u>
Entry-level	9%	1%
Mid-level	13%	2%
Senior-level	11%	2%
<b>Other Resources</b>		
Entry-level	9%	1%
Mid-level	9%	1%
Senior-level	16%	3%

Percent of Washington employers identifying **biggest workforce challenges:**

	<u>Percent</u>	<u>Standard Error of Mean (+/-)</u>
Finding job candidates	38%	1%
Turnover and retention	15%	1%
Replacing retirees	3%	1%
Professional development and training employees	7%	1%
Other	5%	1%
None	30%	2%

Percent of Washington employers identifying **actions taken in response to workforce challenges:**

	<u>Percent</u>	<u>Standard Error of Mean (+/-)</u>
Increased Training	31%	1%
Revised Pay Scale or Benefits	40%	1%
Automated Functions	9%	1%
Used State Workforce System Services	3%	1%

	<u>Percent</u>	<u>Standard Error of Mean (+/-)</u>
Used Temporary Employment Services	8%	1%
Outsourced Work or Used Contract Services	10%	1%
Turned Down or Did Not Pursue Business Opportunities	11%	1%
Lowered Requirements for Job	10%	1%
Increased Recruiting Efforts	34%	1%
Increased Overtime for Existing Employees	24%	1%
Other	2%	0%
No Action Taken	7%	1%

Percent of Washington employers identifying the **effectiveness of outcomes of their responsive actions** to workforce challenges in past 12 months:

	<u>Percent</u>	<u>Standard Error of Mean (+/-)</u>
Helpful	50%	2%
Unsure	27%	2%
Not helpful	23%	2%

Percent of Washington employers **sharing what state workforce system services they used** in the past three years:

	<u>Percent</u>	<u>Standard Error of Mean (+/-)</u>
Finding and Hiring Employees	12%	1%
Accessing Training for Employees	3%	1%
Supporting Workers with Non-skills Related Challenges	4%	1%
Accessing Labor Market and Industry Information	6%	1%
Developing Workforce Practices and Policies	4%	1%
Collaborating with the State Workforce System on Career Connected Learning	2%	0%
Other	1%	0%
None	76%	1%

Percent of Washington employers **sharing why they did not use state workforce system services** in past three years **for specific reasons**:

	<u>Percent</u>	<u>Standard Error of Mean (+/-)</u>
Services do not fit the needs of my business or industry	33%	2%
Job candidates available are not the right fit for my business	16%	1%
Not worth the time or effort	11%	1%
The quality of services is not sufficient	6%	1%
Not aware of these resources	46%	2%
Other Reasons	15%	1%
Not Hiring or Not Needing Other Services	7%	1%

Percent of Washington firms identifying **changes in the difficulty of filling positions from previous year**

	<u>Percent</u>	<u>Standard Error of Mean (+/-)</u>
More Difficult than Last Year	25%	1%
Same as Last Year	65%	2%
Easier than Last Year	10%	1%

Percent of Washington firms **anticipating changes in the difficulty of filling positions for next year:**

	<u>Percent</u>	<u>Standard Error of Mean (+/-)</u>
More Difficult Next Year	31%	1%
Same as This Year	64%	1%
Easier Next Year	4%	1%

## Appendix B: State Level Survey Results – Satisfaction with New Hires from the State Workforce System

\*Responses are weighted using iterative proportional fitting to calibrate on region, industry, and firm size.

Percent of Washington firms that **hired any new employees who had recently completed an educational or training program** in the past 12 months

	<u>Percent</u>	<u>Standard Error of Mean (+/-)</u>
High school career and technical education	8%	1%
Community or technical college	11%	1%
WorkSource Office or WIOA training program*	<1%	0%
Private career or technical schools	4%	1%
Apprenticeships	2%	0%
Adult Basic Education	5%	1%
Four-year college and university	5%	1%
WorkSourceWA.com	2%	0%

\* Note: Responses with sample size with  $n < 32$  are suppressed. WorkSource Office and WIOA contain  $n=20$  responses, but are included for WIOA reporting purposes. Results are not generalizable for population.

Percent of Washington firms satisfied with new hires from **High School Career and Technical Education** programs

<b>Writing Skills</b>	<u>Percent</u>	<u>Standard Error of Mean (+/-)</u>
Very Dissatisfied	6%	5%
Somewhat Dissatisfied	11%	4%
Neither Satisfied nor Dissatisfied	13%	3%
Somewhat Satisfied	31%	6%
Very Satisfied	23%	5%

<b>Math Skills</b>	<i>Percent</i>	<i>Standard Error of Mean (+/-)</i>
Very Dissatisfied	1%	1%
Somewhat Dissatisfied	4%	1%
Neither Satisfied nor Dissatisfied	17%	5%
Somewhat Satisfied	23%	5%
Very Satisfied	26%	5%
<b>Occupation-specific Skills</b>		
Very Dissatisfied	1%	1%
Somewhat Dissatisfied	6%	2%
Neither Satisfied nor Dissatisfied	14%	5%
Somewhat Satisfied	29%	6%
Very Satisfied	44%	6%
<b>Computer Skills</b>		
Very Dissatisfied	4%	4%
Somewhat Dissatisfied	3%	2%
Neither Satisfied nor Dissatisfied	9%	3%
Somewhat Satisfied	21%	5%
Very Satisfied	30%	5%
<b>Teamwork Skills</b>		
Very Dissatisfied	1%	1%
Somewhat Dissatisfied	7%	3%
Neither Satisfied nor Dissatisfied	9%	3%
Somewhat Satisfied	34%	6%
Very Satisfied	45%	6%
<b>Problem-solving or critical thinking skills</b>		
Very Dissatisfied	3%	2%
Somewhat Dissatisfied	13%	5%
Neither Satisfied nor Dissatisfied	10%	3%
Somewhat Satisfied	43%	7%
Very Satisfied	24%	6%
<b>Communication Skills</b>		
Very Dissatisfied	4%	2%
Somewhat Dissatisfied	5%	2%
Neither Satisfied nor Dissatisfied	12%	4%
Somewhat Satisfied	43%	6%
Very Satisfied	35%	5%

<b>Positive work habits and attitudes</b>	<i>Percent</i>	<i>Standard Error of Mean (+/-)</i>
Very Dissatisfied	1%	1%
Somewhat Dissatisfied	23%	7%
Neither Satisfied nor Dissatisfied	9%	3%
Somewhat Satisfied	24%	4%
Very Satisfied	39%	5%
<b>Ability to accept supervision</b>		
Very Dissatisfied	1%	1%
Somewhat Dissatisfied	9%	2%
Neither Satisfied nor Dissatisfied	3%	1%
Somewhat Satisfied	37%	7%
Very Satisfied	48%	7%
<b>Adapt to changes in duties and responsibilities</b>		
Very Dissatisfied	4%	2%
Somewhat Dissatisfied	9%	3%
Neither Satisfied nor Dissatisfied	15%	5%
Somewhat Satisfied	32%	6%
Very Satisfied	34%	6%
<b>Overall productivity</b>		
Very Dissatisfied	1%	1%
Somewhat Dissatisfied	12%	5%
Neither Satisfied nor Dissatisfied	11%	3%
Somewhat Satisfied	37%	7%
Very Satisfied	38%	7%
<b>Overall quality</b>		
Very Dissatisfied	1%	1%
Somewhat Dissatisfied	12%	5%
Neither Satisfied nor Dissatisfied	7%	2%
Somewhat Satisfied	43%	6%
Very Satisfied	36%	6%

Percent of Washington firms satisfied with new hires from **Community and Technical College** career-focused degree or certificate programs

<b>Writing Skills</b>	<i>Percent</i>	<i>Standard Error of Mean (+/-)</i>
Very Dissatisfied	1%	1%
Somewhat Dissatisfied	9%	3%
Neither Satisfied nor Dissatisfied	10%	2%
Somewhat Satisfied	26%	5%
Very Satisfied	40%	5%
<b>Math Skills</b>		
Very Dissatisfied	2%	1%
Somewhat Dissatisfied	9%	3%
Neither Satisfied nor Dissatisfied	10%	4%
Somewhat Satisfied	22%	4%
Very Satisfied	30%	5%
<b>Occupation-specific Skills</b>		
Very Dissatisfied	2%	1%
Somewhat Dissatisfied	6%	2%
Neither Satisfied nor Dissatisfied	8%	3%
Somewhat Satisfied	30%	5%
Very Satisfied	52%	6%
<b>Computer Skills</b>		
Very Dissatisfied	0%	0%
Somewhat Dissatisfied	5%	3%
Neither Satisfied nor Dissatisfied	3%	1%
Somewhat Satisfied	29%	5%
Very Satisfied	49%	5%
<b>Teamwork Skills</b>		
Very Dissatisfied	2%	1%
Somewhat Dissatisfied	11%	3%
Neither Satisfied nor Dissatisfied	6%	2%
Somewhat Satisfied	30%	4%
Very Satisfied	49%	6%
<b>Problem-solving or critical thinking skills</b>		
Very Dissatisfied	2%	1%
Somewhat Dissatisfied	14%	4%
Neither Satisfied nor Dissatisfied	7%	2%
Somewhat Satisfied	34%	4%
Very Satisfied	40%	5%

<b>Communication Skills</b>	<i>Percent</i>	<i>Standard Error of Mean (+/-)</i>
Very Dissatisfied	2%	1%
Somewhat Dissatisfied	7%	3%
Neither Satisfied nor Dissatisfied	9%	3%
Somewhat Satisfied	38%	6%
Very Satisfied	43%	6%
<b>Positive work habits and attitudes</b>		
Very Dissatisfied	4%	2%
Somewhat Dissatisfied	7%	3%
Neither Satisfied nor Dissatisfied	11%	4%
Somewhat Satisfied	28%	5%
Very Satisfied	49%	5%
<b>Ability to accept supervision</b>		
Very Dissatisfied	2%	1%
Somewhat Dissatisfied	4%	2%
Neither Satisfied nor Dissatisfied	8%	2%
Somewhat Satisfied	38%	5%
Very Satisfied	46%	5%
<b>Adapt to changes in duties and responsibilities</b>		
Very Dissatisfied	2%	1%
Somewhat Dissatisfied	9%	3%
Neither Satisfied nor Dissatisfied	11%	3%
Somewhat Satisfied	33%	6%
Very Satisfied	41%	6%
<b>Overall productivity</b>		
Very Dissatisfied	1%	1%
Somewhat Dissatisfied	5%	2%
Neither Satisfied nor Dissatisfied	10%	4%
Somewhat Satisfied	37%	5%
Very Satisfied	46%	6%
<b>Overall quality</b>		
Very Dissatisfied	1%	1%
Somewhat Dissatisfied	5%	2%
Neither Satisfied nor Dissatisfied	6%	3%
Somewhat Satisfied	31%	4%
Very Satisfied	55%	5%

Percent of Washington firms satisfied with new hires from **WorkSource Office or a Workforce Investment and Opportunity Act** training programs

\* Note: WorkSource Office and WIOA programs contain n=20 responses are included for reporting purposes, but results are not generalizable for population.

<b>Writing Skills</b>	<i>Percent</i>	<i>Standard Error of Mean (+/-)</i>
Very Dissatisfied	0%	0%
Somewhat Dissatisfied	8%	6%
Neither Satisfied nor Dissatisfied	9%	5%
Somewhat Satisfied	49%	13%
Very Satisfied	32%	14%
<b>Math Skills</b>		
Very Dissatisfied	0%	0%
Somewhat Dissatisfied	15%	10%
Neither Satisfied nor Dissatisfied	7%	4%
Somewhat Satisfied	27%	13%
Very Satisfied	32%	15%
<b>Occupation-specific Skills</b>		
Very Dissatisfied	8%	7%
Somewhat Dissatisfied	0%	0%
Neither Satisfied nor Dissatisfied	7%	4%
Somewhat Satisfied	47%	13%
Very Satisfied	29%	11%
<b>Computer Skills</b>		
Very Dissatisfied	8%	8%
Somewhat Dissatisfied	4%	5%
Neither Satisfied nor Dissatisfied	14%	9%
Somewhat Satisfied	10%	8%
Very Satisfied	39%	14%
<b>Teamwork Skills</b>		
Very Dissatisfied	0%	0%
Somewhat Dissatisfied	4%	5%
Neither Satisfied nor Dissatisfied	11%	9%
Somewhat Satisfied	26%	10%
Very Satisfied	57%	14%

<b>Problem-solving or critical thinking skills</b>	<i>Percent</i>	<i>Standard Error of Mean (+/-)</i>
Very Dissatisfied	0%	0%
Somewhat Dissatisfied	17%	10%
Neither Satisfied nor Dissatisfied	7%	5%
Somewhat Satisfied	30%	12%
Very Satisfied	34%	14%
<b>Communication Skills</b>		
Very Dissatisfied	0%	0%
Somewhat Dissatisfied	15%	8%
Neither Satisfied nor Dissatisfied	2%	2%
Somewhat Satisfied	29%	13%
Very Satisfied	53%	15%
<b>Positive work habits and attitudes</b>		
Very Dissatisfied	0%	0%
Somewhat Dissatisfied	2%	3%
Neither Satisfied nor Dissatisfied	9%	8%
Somewhat Satisfied	43%	14%
Very Satisfied	45%	13%
<b>Ability to accept supervision</b>		
Very Dissatisfied	0%	0%
Somewhat Dissatisfied	2%	3%
Neither Satisfied nor Dissatisfied	7%	5%
Somewhat Satisfied	47%	14%
Very Satisfied	43%	15%
<b>Adapt to changes in duties and responsibilities</b>		
Very Dissatisfied	0%	0%
Somewhat Dissatisfied	0%	0%
Neither Satisfied nor Dissatisfied	11%	8%
Somewhat Satisfied	43%	14%
Very Satisfied	45%	13%
<b>Overall productivity</b>		
Very Dissatisfied	4%	5%
Somewhat Dissatisfied	2%	3%
Neither Satisfied nor Dissatisfied	2%	2%
Somewhat Satisfied	49%	14%
Very Satisfied	41%	15%

<b>Overall quality</b>	<i>Percent</i>	<i>Standard Error of Mean (+/-)</i>
Very Dissatisfied	0%	0%
Somewhat Dissatisfied	0%	0%
Neither Satisfied nor Dissatisfied	5%	3%
Somewhat Satisfied	57%	14%
Very Satisfied	37%	14%

Percent of Washington firms satisfied with new hires from **Private Career School** training programs

<b>Writing Skills</b>	<i>Percent</i>	<i>Standard Error of Mean (+/-)</i>
Very Dissatisfied	2%	3%
Somewhat Dissatisfied	9%	4%
Neither Satisfied nor Dissatisfied	9%	5%
Somewhat Satisfied	35%	8%
Very Satisfied	34%	7%

<b>Math Skills</b>	<i>Percent</i>	<i>Standard Error of Mean (+/-)</i>
Very Dissatisfied	2%	3%
Somewhat Dissatisfied	4%	3%
Neither Satisfied nor Dissatisfied	18%	6%
Somewhat Satisfied	28%	6%
Very Satisfied	28%	6%

<b>Occupation-specific Skills</b>	<i>Percent</i>	<i>Standard Error of Mean (+/-)</i>
Very Dissatisfied	2%	2%
Somewhat Dissatisfied	1%	1%
Neither Satisfied nor Dissatisfied	12%	5%
Somewhat Satisfied	25%	7%
Very Satisfied	53%	8%

<b>Computer Skills</b>	<i>Percent</i>	<i>Standard Error of Mean (+/-)</i>
Very Dissatisfied	1%	1%
Somewhat Dissatisfied	8%	5%
Neither Satisfied nor Dissatisfied	6%	2%
Somewhat Satisfied	31%	6%
Very Satisfied	38%	6%

<b>Teamwork Skills</b>	<i>Percent</i>	<i>Standard Error of Mean (+/-)</i>
Very Dissatisfied	2%	3%
Somewhat Dissatisfied	7%	5%
Neither Satisfied nor Dissatisfied	4%	2%
Somewhat Satisfied	31%	7%
Very Satisfied	56%	8%
<b>Problem-solving or critical thinking skills</b>		
Very Dissatisfied	8%	6%
Somewhat Dissatisfied	6%	3%
Neither Satisfied nor Dissatisfied	3%	3%
Somewhat Satisfied	43%	6%
Very Satisfied	39%	6%
<b>Communication Skills</b>		
Very Dissatisfied	3%	3%
Somewhat Dissatisfied	1%	1%
Neither Satisfied nor Dissatisfied	7%	5%
Somewhat Satisfied	35%	7%
Very Satisfied	52%	7%
<b>Positive work habits and attitudes</b>		
Very Dissatisfied	2%	3%
Somewhat Dissatisfied	1%	1%
Neither Satisfied nor Dissatisfied	11%	6%
Somewhat Satisfied	33%	7%
Very Satisfied	51%	7%
<b>Ability to accept supervision</b>		
Very Dissatisfied	2%	3%
Somewhat Dissatisfied	8%	4%
Neither Satisfied nor Dissatisfied	3%	2%
Somewhat Satisfied	33%	7%
Very Satisfied	52%	7%
<b>Adapt to changes in duties and responsibilities</b>		
Very Dissatisfied	3%	3%
Somewhat Dissatisfied	6%	5%
Neither Satisfied nor Dissatisfied	6%	3%
Somewhat Satisfied	32%	7%
Very Satisfied	52%	7%

<b>Overall productivity</b>	<i>Percent</i>	<i>Standard Error of Mean (+/-)</i>
Very Dissatisfied	4%	3%
Somewhat Dissatisfied	4%	2%
Neither Satisfied nor Dissatisfied	6%	4%
Somewhat Satisfied	38%	8%
Very Satisfied	49%	8%
<b>Overall quality</b>		
Very Dissatisfied	2%	3%
Somewhat Dissatisfied	7%	5%
Neither Satisfied nor Dissatisfied	1%	1%
Somewhat Satisfied	44%	8%
Very Satisfied	46%	7%

Percent of Washington firms satisfied with new hires from **Apprenticeship** programs

<b>Writing Skills</b>	<i>Percent</i>	<i>Standard Error of Mean (+/-)</i>
Very Dissatisfied	0%	0%
Somewhat Dissatisfied	2%	2%
Neither Satisfied nor Dissatisfied	13%	7%
Somewhat Satisfied	25%	8%
Very Satisfied	33%	10%
<b>Math Skills</b>		
Very Dissatisfied	1%	1%
Somewhat Dissatisfied	0%	0%
Neither Satisfied nor Dissatisfied	13%	7%
Somewhat Satisfied	21%	7%
Very Satisfied	38%	10%
<b>Occupation-specific Skills</b>		
Very Dissatisfied	3%	3%
Somewhat Dissatisfied	1%	1%
Neither Satisfied nor Dissatisfied	6%	6%
Somewhat Satisfied	38%	9%
Very Satisfied	48%	9%

<b>Computer Skills</b>	<i>Percent</i>	<i>Standard Error of Mean (+/-)</i>
Very Dissatisfied	1%	1%
Somewhat Dissatisfied	1%	1%
Neither Satisfied nor Dissatisfied	23%	9%
Somewhat Satisfied	18%	6%
Very Satisfied	40%	9%
<b>Teamwork Skills</b>		
Very Dissatisfied	0%	0%
Somewhat Dissatisfied	4%	3%
Neither Satisfied nor Dissatisfied	0%	0%
Somewhat Satisfied	20%	8%
Very Satisfied	67%	11%
<b>Problem-solving or critical thinking skills</b>		
Very Dissatisfied	3%	3%
Somewhat Dissatisfied	3%	2%
Neither Satisfied nor Dissatisfied	8%	5%
Somewhat Satisfied	32%	9%
Very Satisfied	45%	10%
<b>Communication Skills</b>		
Very Dissatisfied	1%	1%
Somewhat Dissatisfied	2%	1%
Neither Satisfied nor Dissatisfied	3%	3%
Somewhat Satisfied	30%	10%
Very Satisfied	55%	11%
<b>Positive work habits and attitudes</b>		
Very Dissatisfied	1%	1%
Somewhat Dissatisfied	0%	0%
Neither Satisfied nor Dissatisfied	5%	3%
Somewhat Satisfied	12%	5%
Very Satisfied	72%	9%
<b>Ability to accept supervision</b>		
Very Dissatisfied	1%	1%
Somewhat Dissatisfied	0%	0%
Neither Satisfied nor Dissatisfied	5%	3%
Somewhat Satisfied	18%	7%
Very Satisfied	66%	11%

<b>Adapt to changes in duties and responsibilities</b>	<i>Percent</i>	<i>Standard Error of Mean (+/-)</i>
Very Dissatisfied	0%	0%
Somewhat Dissatisfied	1%	1%
Neither Satisfied nor Dissatisfied	10%	5%
Somewhat Satisfied	17%	7%
Very Satisfied	63%	11%
<b>Overall productivity</b>		
Very Dissatisfied	1%	1%
Somewhat Dissatisfied	3%	3%
Neither Satisfied nor Dissatisfied	0%	0%
Somewhat Satisfied	35%	11%
Very Satisfied	59%	10%
<b>Overall quality</b>		
Very Dissatisfied	0%	0%
Somewhat Dissatisfied	4%	3%
Neither Satisfied nor Dissatisfied	0%	0%
Somewhat Satisfied	42%	12%
Very Satisfied	52%	11%

Percent of Washington firms satisfied with new hires from **Basic Education for Adults** programs

<b>Writing Skills</b>	<i>Percent</i>	<i>Standard Error of Mean (+/-)</i>
Very Dissatisfied	3%	2%
Somewhat Dissatisfied	9%	4%
Neither Satisfied nor Dissatisfied	12%	4%
Somewhat Satisfied	35%	7%
Very Satisfied	21%	6%
<b>Math Skills</b>		
Very Dissatisfied	7%	3%
Somewhat Dissatisfied	6%	2%
Neither Satisfied nor Dissatisfied	15%	5%
Somewhat Satisfied	34%	7%
Very Satisfied	22%	6%

<b>Occupation-specific Skills</b>	<i>Percent</i>	<i>Standard Error of Mean (+/-)</i>
Very Dissatisfied	4%	3%
Somewhat Dissatisfied	7%	3%
Neither Satisfied nor Dissatisfied	14%	4%
Somewhat Satisfied	29%	7%
Very Satisfied	38%	6%
<b>Computer Skills</b>		
Very Dissatisfied	3%	1%
Somewhat Dissatisfied	6%	3%
Neither Satisfied nor Dissatisfied	16%	4%
Somewhat Satisfied	24%	6%
Very Satisfied	30%	7%
<b>Teamwork Skills</b>		
Very Dissatisfied	3%	3%
Somewhat Dissatisfied	9%	4%
Neither Satisfied nor Dissatisfied	9%	4%
Somewhat Satisfied	25%	6%
Very Satisfied	51%	8%
<b>Problem-solving or critical thinking skills</b>		
Very Dissatisfied	2%	1%
Somewhat Dissatisfied	16%	5%
Neither Satisfied nor Dissatisfied	16%	5%
Somewhat Satisfied	44%	6%
Very Satisfied	19%	4%
<b>Communication Skills</b>		
Very Dissatisfied	4%	3%
Somewhat Dissatisfied	15%	4%
Neither Satisfied nor Dissatisfied	9%	4%
Somewhat Satisfied	27%	7%
Very Satisfied	42%	7%
<b>Positive work habits and attitudes</b>		
Very Dissatisfied	6%	4%
Somewhat Dissatisfied	15%	4%
Neither Satisfied nor Dissatisfied	6%	3%
Somewhat Satisfied	25%	5%
Very Satisfied	45%	7%

<b>Ability to accept supervision</b>	<i>Percent</i>	<i>Standard Error of Mean (+/-)</i>
Very Dissatisfied	6%	3%
Somewhat Dissatisfied	5%	2%
Neither Satisfied nor Dissatisfied	8%	4%
Somewhat Satisfied	25%	4%
Very Satisfied	54%	7%
<b>Adapt to changes in duties and responsibilities</b>		
Very Dissatisfied	7%	3%
Somewhat Dissatisfied	9%	3%
Neither Satisfied nor Dissatisfied	7%	3%
Somewhat Satisfied	27%	5%
Very Satisfied	46%	6%
<b>Overall productivity</b>		
Very Dissatisfied	5%	3%
Somewhat Dissatisfied	9%	3%
Neither Satisfied nor Dissatisfied	16%	6%
Somewhat Satisfied	28%	6%
Very Satisfied	40%	8%
<b>Overall quality</b>		
Very Dissatisfied	4%	3%
Somewhat Dissatisfied	16%	4%
Neither Satisfied nor Dissatisfied	11%	5%
Somewhat Satisfied	29%	7%
Very Satisfied	36%	7%

Percent of Washington firms satisfied with new hires from **Four-year College and University** degree programs

<b>Writing Skills</b>	<i>Percent</i>	<i>Standard Error of Mean (+/-)</i>
Very Dissatisfied	0%	0%
Somewhat Dissatisfied	2%	1%
Neither Satisfied nor Dissatisfied	5%	2%
Somewhat Satisfied	22%	4%
Very Satisfied	61%	4%
<b>Math Skills</b>		
Very Dissatisfied	0%	0%
Somewhat Dissatisfied	0%	0%
Neither Satisfied nor Dissatisfied	6%	2%
Somewhat Satisfied	26%	4%
Very Satisfied	52%	5%
<b>Occupation-specific Skills</b>		
Very Dissatisfied	1%	1%
Somewhat Dissatisfied	3%	1%
Neither Satisfied nor Dissatisfied	5%	2%
Somewhat Satisfied	32%	4%
Very Satisfied	57%	4%
<b>Computer Skills</b>		
Very Dissatisfied	0%	0%
Somewhat Dissatisfied	1%	1%
Neither Satisfied nor Dissatisfied	2%	1%
Somewhat Satisfied	24%	4%
Very Satisfied	64%	4%
<b>Teamwork Skills</b>		
Very Dissatisfied	1%	0%
Somewhat Dissatisfied	3%	1%
Neither Satisfied nor Dissatisfied	4%	1%
Somewhat Satisfied	21%	4%
Very Satisfied	69%	4%
<b>Problem-solving or critical thinking skills</b>		
Very Dissatisfied	1%	1%
Somewhat Dissatisfied	1%	1%
Neither Satisfied nor Dissatisfied	6%	2%
Somewhat Satisfied	24%	5%
Very Satisfied	63%	5%

<b>Communication Skills</b>	<i>Percent</i>	<i>Standard Error of Mean (+/-)</i>
Very Dissatisfied	1%	0%
Somewhat Dissatisfied	4%	2%
Neither Satisfied nor Dissatisfied	2%	1%
Somewhat Satisfied	28%	4%
Very Satisfied	64%	4%
<b>Positive work habits and attitudes</b>		
Very Dissatisfied	1%	1%
Somewhat Dissatisfied	3%	1%
Neither Satisfied nor Dissatisfied	3%	1%
Somewhat Satisfied	20%	4%
Very Satisfied	71%	4%
<b>Ability to accept supervision</b>		
Very Dissatisfied	1%	1%
Somewhat Dissatisfied	3%	2%
Neither Satisfied nor Dissatisfied	5%	2%
Somewhat Satisfied	21%	3%
Very Satisfied	68%	4%
<b>Adapt to changes in duties and responsibilities</b>		
Very Dissatisfied	1%	1%
Somewhat Dissatisfied	3%	1%
Neither Satisfied nor Dissatisfied	9%	3%
Somewhat Satisfied	18%	3%
Very Satisfied	65%	4%
<b>Overall productivity</b>		
Very Dissatisfied	2%	1%
Somewhat Dissatisfied	3%	1%
Neither Satisfied nor Dissatisfied	1%	0%
Somewhat Satisfied	25%	4%
Very Satisfied	66%	5%
<b>Overall quality</b>		
Very Dissatisfied	1%	1%
Somewhat Dissatisfied	3%	1%
Neither Satisfied nor Dissatisfied	2%	1%
Somewhat Satisfied	25%	4%
Very Satisfied	68%	4%

Percent of Washington firms satisfied with new hires from **WorkSourceWA.com**

<b>Writing Skills</b>	<i>Percent</i>	<i>Standard Error of Mean (+/-)</i>
Very Dissatisfied	5%	5%
Somewhat Dissatisfied	19%	9%
Neither Satisfied nor Dissatisfied	16%	7%
Somewhat Satisfied	25%	9%
Very Satisfied	26%	11%
<b>Math Skills</b>		
Very Dissatisfied	5%	5%
Somewhat Dissatisfied	5%	3%
Neither Satisfied nor Dissatisfied	30%	10%
Somewhat Satisfied	18%	7%
Very Satisfied	22%	9%
<b>Occupation-specific Skills</b>		
Very Dissatisfied	2%	1%
Somewhat Dissatisfied	16%	9%
Neither Satisfied nor Dissatisfied	11%	6%
Somewhat Satisfied	26%	10%
Very Satisfied	36%	9%
<b>Computer Skills</b>		
Very Dissatisfied	0%	0%
Somewhat Dissatisfied	6%	4%
Neither Satisfied nor Dissatisfied	17%	7%
Somewhat Satisfied	12%	5%
Very Satisfied	42%	10%
<b>Teamwork Skills</b>		
Very Dissatisfied	5%	5%
Somewhat Dissatisfied	7%	4%
Neither Satisfied nor Dissatisfied	16%	9%
Somewhat Satisfied	29%	7%
Very Satisfied	40%	11%
<b>Problem-solving or critical thinking skills</b>		
Very Dissatisfied	7%	6%
Somewhat Dissatisfied	4%	3%
Neither Satisfied nor Dissatisfied	26%	10%
Somewhat Satisfied	35%	10%
Very Satisfied	23%	9%

<b>Communication Skills</b>	<i>Percent</i>	<i>Standard Error of Mean (+/-)</i>
Very Dissatisfied	3%	3%
Somewhat Dissatisfied	7%	4%
Neither Satisfied nor Dissatisfied	19%	9%
Somewhat Satisfied	37%	8%
Very Satisfied	30%	11%
<b>Positive work habits and attitudes</b>		
Very Dissatisfied	0%	0%
Somewhat Dissatisfied	17%	7%
Neither Satisfied nor Dissatisfied	25%	8%
Somewhat Satisfied	25%	9%
Very Satisfied	29%	9%
<b>Ability to accept supervision</b>		
Very Dissatisfied	9%	7%
Somewhat Dissatisfied	2%	2%
Neither Satisfied nor Dissatisfied	7%	4%
Somewhat Satisfied	33%	7%
Very Satisfied	46%	10%
<b>Adapt to changes in duties and responsibilities</b>		
Very Dissatisfied	7%	6%
Somewhat Dissatisfied	2%	2%
Neither Satisfied nor Dissatisfied	8%	4%
Somewhat Satisfied	48%	10%
Very Satisfied	31%	10%
<b>Overall productivity</b>		
Very Dissatisfied	7%	6%
Somewhat Dissatisfied	12%	6%
Neither Satisfied nor Dissatisfied	7%	3%
Somewhat Satisfied	38%	9%
Very Satisfied	35%	10%
<b>Overall quality</b>		
Very Dissatisfied	7%	5%
Somewhat Dissatisfied	5%	4%
Neither Satisfied nor Dissatisfied	17%	7%
Somewhat Satisfied	34%	9%
Very Satisfied	35%	10%

## Appendix C: Survey Results by Employer Size – Needs and Practices

\*Reponses are weighted using iterative proportional fitting to calibrate on region, industry, and firm size.

Percent of Washington employers reporting **benefits provided:**

	<i>Percent</i>	<i>Standard Error of Mean (+/-)</i>
Paid Leave		
<i>Small</i>	76%	1%
<i>Medium</i>	86%	2%
<i>Large</i>	83%	3%
Health Insurance		
<i>Small</i>	54%	2%
<i>Medium</i>	84%	2%
<i>Large</i>	81%	3%
Retirement		
<i>Small</i>	44%	2%
<i>Medium</i>	65%	2%
<i>Large</i>	75%	4%
Other		
<i>Small</i>	20%	1%
<i>Medium</i>	31%	2%
<i>Large</i>	32%	4%
No Benefits		
<i>Small</i>	16%	1%
<i>Medium</i>	4%	1%
<i>Large</i>	6%	2%

Percent of Washington employers reporting **types of training provided:**

	<i>Percent</i>	<i>Standard Error of Mean (+/-)</i>
Informal On-the-job Training		
<i>Small</i>	91%	1%
<i>Medium</i>	93%	2%
<i>Large</i>	89%	2%
Formal In-house Training		
<i>Small</i>	49%	2%
<i>Medium</i>	55%	3%
<i>Large</i>	57%	4%

	<i>Percent</i>	<i>Standard Error of Mean (+/-)</i>
Third Party Training		
<i>Small</i>	26%	2%
<i>Medium</i>	34%	3%
<i>Large</i>	39%	4%
Seminars and Conferences		
<i>Small</i>	49%	1%
<i>Medium</i>	58%	3%
<i>Large</i>	59%	4%
Self-study and Online Training		
<i>Small</i>	50%	2%
<i>Medium</i>	57%	3%
<i>Large</i>	67%	3%
Other Types of Training		
<i>Small</i>	5%	1%
<i>Medium</i>	6%	1%
<i>Large</i>	8%	3%
No Training		
<i>Small</i>	3%	1%
<i>Medium</i>	1%	1%
<i>Large</i>	0%	0%

Percent of Washington employers reporting **who administers formal training:**

	<i>Percent</i>	<i>Standard Error of Mean (+/-)</i>
In-house Corporate Staff		
<i>Small</i>	79%	1%
<i>Medium</i>	85%	2%
<i>Large</i>	81%	3%
Private Sector Vendors		
<i>Small</i>	36%	1%
<i>Medium</i>	46%	3%
<i>Large</i>	47%	5%
WorkSource Offices		
<i>Small</i>	3%	1%
<i>Medium</i>	5%	1%
<i>Large</i>	7%	2%

	<i>Percent</i>	<i>Standard Error of Mean (+/-)</i>
Apprenticeships		
<i>Small</i>	10%	1%
<i>Medium</i>	15%	2%
<i>Large</i>	18%	4%
Community and Technical Colleges		
<i>Small</i>	12%	1%
<i>Medium</i>	17%	3%
<i>Large</i>	22%	3%
Four-year Universities and Colleges		
<i>Small</i>	6%	1%
<i>Medium</i>	9%	2%
<i>Large</i>	13%	3%
Other		
<i>Small</i>	8%	1%
<i>Medium</i>	8%	1%
<i>Large</i>	14%	3%

Percent of Washington employers with **job openings** in past 12 months:

	<i>Percent</i>	<i>Standard Error of Mean (+/-)</i>
Entry-level		
<i>Small</i>	62%	2%
<i>Medium</i>	92%	1%
<i>Large</i>	85%	3%
Mid-level		
<i>Small</i>	36%	1%
<i>Medium</i>	65%	3%
<i>Large</i>	71%	5%
Senior-level		
<i>Small</i>	17%	1%
<i>Medium</i>	32%	3%
<i>Large</i>	44%	4%

Percent of Washington employers with job openings that **hired employees** in past 12 Months:

Entry-level	<i>Percent</i>	<i>Standard Error of Mean (+/-)</i>
<i>Small</i>	93%	1%
<i>Medium</i>	98%	1%
<i>Large</i>	97%	2%
Mid-level		
<i>Small</i>	81%	2%
<i>Medium</i>	95%	1%
<i>Large</i>	91%	3%
Senior-level		
<i>Small</i>	69%	4%
<i>Medium</i>	86%	4%
<i>Large</i>	90%	4%

Percent of Washington employers that experienced **difficulty filling job openings** in Past 12 Months:

Entry-level	<i>Percent</i>	<i>Standard Error of Mean (+/-)</i>
<i>Small</i>	46%	2%
<i>Medium</i>	50%	3%
<i>Large</i>	55%	5%
Mid-level		
<i>Small</i>	50%	3%
<i>Medium</i>	47%	4%
<i>Large</i>	43%	5%
Senior-level		
<i>Small</i>	60%	4%
<i>Medium</i>	42%	6%
<i>Large</i>	47%	5%

Percent of Washington employers explaining **why job openings were difficulty to fill:**

<b>Not Enough Applicants</b>	<i>Percent</i>	<i>Standard Error of Mean (+/-)</i>
Entry-level		
<i>Small</i>	74%	3%
<i>Medium</i>	70%	4%
<i>Large</i>	67%	6%
Mid-level		
<i>Small</i>	72%	4%
<i>Medium</i>	73%	5%
<i>Large</i>	76%	7%
Senior-level		
<i>Small</i>	79%	5%
<i>Medium</i>	73%	7%
<i>Large</i>	74%	8%
<b>Background Check Issues</b>		
Entry-level		
<i>Small</i>	21%	2%
<i>Medium</i>	28%	4%
<i>Large</i>	38%	6%
Mid-level		
<i>Small</i>	13%	2%
<i>Medium</i>	15%	3%
<i>Large</i>	27%	8%
Senior-level		
<i>Small</i>	9%	3%
<i>Medium</i>	3%	3%
<i>Large</i>	2%	2%
<b>Geographic Issues</b>		
Entry-level		
<i>Small</i>	24%	3%
<i>Medium</i>	27%	4%
<i>Large</i>	33%	6%
Mid-level		
<i>Small</i>	23%	3%
<i>Medium</i>	24%	6%
<i>Large</i>	14%	5%

	<i>Percent</i>	<i>Standard Error of Mean (+/-)</i>
Senior-level		
<i>Small</i>	26%	6%
<i>Medium</i>	22%	8%
<i>Large</i>	29%	9%
<b>Declined Job Offer</b>		
Entry-level		
<i>Small</i>	25%	3%
<i>Medium</i>	37%	4%
<i>Large</i>	38%	8%
Mid-level		
<i>Small</i>	30%	3%
<i>Medium</i>	43%	5%
<i>Large</i>	49%	9%
Senior-level		
<i>Small</i>	25%	5%
<i>Medium</i>	39%	8%
<i>Large</i>	36%	9%
<b>Lack of Education or Training</b>		
Entry-level		
<i>Small</i>	21%	2%
<i>Medium</i>	23%	4%
<i>Large</i>	16%	6%
Mid-level		
<i>Small</i>	39%	4%
<i>Medium</i>	45%	5%
<i>Large</i>	43%	7%
Senior-level		
<i>Small</i>	40%	6%
<i>Medium</i>	23%	6%
<i>Large</i>	48%	11%
<b>Lack of Work Experience</b>		
Entry-level		
<i>Small</i>	39%	3%
<i>Medium</i>	33%	4%
<i>Large</i>	37%	7%

	<i>Percent</i>	<i>Standard Error of Mean (+/-)</i>
Mid-level		
<i>Small</i>	54%	5%
<i>Medium</i>	53%	6%
<i>Large</i>	55%	8%
Senior-level		
<i>Small</i>	42%	10%
<i>Medium</i>	41%	9%
<i>Large</i>	42%	10%
<b>Lack of Soft Skills</b>		
Entry-level		
<i>Small</i>	34%	3%
<i>Medium</i>	29%	3%
<i>Large</i>	31%	6%
Mid-level		
<i>Small</i>	27%	4%
<i>Medium</i>	16%	3%
<i>Large</i>	17%	6%
Senior-level		
<i>Small</i>	16%	5%
<i>Medium</i>	12%	6%
<i>Large</i>	11%	7%
<b>Lack of Employability</b>		
Entry-level		
<i>Small</i>	49%	3%
<i>Medium</i>	47%	4%
<i>Large</i>	45%	6%
Mid-level		
<i>Small</i>	29%	4%
<i>Medium</i>	29%	5%
<i>Large</i>	15%	5%
Senior-level		
<i>Small</i>	16%	3%
<i>Medium</i>	10%	5%
<i>Large</i>	17%	8%

<b>Other Reasons</b>	<i>Percent</i>	<i>Standard Error of Mean (+/-)</i>
Entry-level		
<i>Small</i>	21%	3%
<i>Medium</i>	14%	2%
<i>Large</i>	20%	5%
Mid-level		
<i>Small</i>	13%	3%
<i>Medium</i>	14%	3%
<i>Large</i>	11%	5%
Senior-level		
<i>Small</i>	12%	7%
<i>Medium</i>	15%	7%
<i>Large</i>	12%	7%

Percent of Washington employers using certain **recruiting resources**:

<b>Word of Mouth</b>	<i>Percent</i>	<i>Standard Error of Mean (+/-)</i>
Entry-level		
<i>Small</i>	86%	1%
<i>Medium</i>	86%	2%
<i>Large</i>	83%	4%
Mid-level		
<i>Small</i>	81%	3%
<i>Medium</i>	84%	3%
<i>Large</i>	86%	4%
Senior-level		
<i>Small</i>	79%	4%
<i>Medium</i>	70%	5%
<i>Large</i>	80%	6%
<b>Internet Job Boards</b>		
Entry-level		
<i>Small</i>	68%	2%
<i>Medium</i>	85%	2%
<i>Large</i>	85%	4%

	<i>Percent</i>	<i>Standard Error of Mean (+/-)</i>
Mid-level		
<i>Small</i>	73%	2%
<i>Medium</i>	85%	2%
<i>Large</i>	85%	4%
Senior-level		
<i>Small</i>	64%	4%
<i>Medium</i>	62%	5%
<i>Large</i>	79%	6%
<b>Company Job Boards</b>		
Entry-level		
<i>Small</i>	31%	2%
<i>Medium</i>	48%	3%
<i>Large</i>	56%	5%
Mid-level		
<i>Small</i>	32%	2%
<i>Medium</i>	52%	4%
<i>Large</i>	62%	5%
Senior-level		
<i>Small</i>	32%	4%
<i>Medium</i>	32%	4%
<i>Large</i>	65%	6%
<b>Social Networking Sites</b>		
Entry-level		
<i>Small</i>	47%	2%
<i>Medium</i>	61%	3%
<i>Large</i>	54%	5%
Mid-level		
<i>Small</i>	47%	3%
<i>Medium</i>	60%	4%
<i>Large</i>	62%	5%
Senior-level		
<i>Small</i>	37%	4%
<i>Medium</i>	51%	6%
<i>Large</i>	58%	7%

<b>Local Newspapers</b>	<i>Percent</i>	<i>Standard Error of Mean (+/-)</i>
Entry-level		
<i>Small</i>	9%	1%
<i>Medium</i>	10%	1%
<i>Large</i>	27%	4%
Mid-level		
<i>Small</i>	10%	1%
<i>Medium</i>	11%	2%
<i>Large</i>	26%	4%
Senior-level		
<i>Small</i>	11%	2%
<i>Medium</i>	8%	2%
<i>Large</i>	23%	6%
<b>WorkSourceWA.com</b>		
Entry-level		
<i>Small</i>	12%	1%
<i>Medium</i>	18%	2%
<i>Large</i>	33%	4%
Mid-level		
<i>Small</i>	8%	1%
<i>Medium</i>	13%	2%
<i>Large</i>	32%	5%
Senior-level		
<i>Small</i>	8%	2%
<i>Medium</i>	13%	3%
<i>Large</i>	31%	6%
<b>Referrals from WorkSource Offices</b>		
Entry-level		
<i>Small</i>	6%	1%
<i>Medium</i>	8%	2%
<i>Large</i>	13%	3%
Mid-level		
<i>Small</i>	4%	1%
<i>Medium</i>	5%	2%
<i>Large</i>	10%	3%

	<i>Percent</i>	<i>Standard Error of Mean (+/-)</i>
Senior-level		
<i>Small</i>	10%	4%
<i>Medium</i>	5%	2%
<i>Large</i>	3%	1%
<b>Private Career Schools or Vocational Schools</b>		
Entry-level		
<i>Small</i>	7%	1%
<i>Medium</i>	13%	2%
<i>Large</i>	18%	4%
Mid-level		
<i>Small</i>	9%	2%
<i>Medium</i>	11%	2%
<i>Large</i>	14%	4%
Senior-level		
<i>Small</i>	7%	2%
<i>Medium</i>	3%	2%
<i>Large</i>	11%	4%
<b>High School Career and Technical Education Programs</b>		
Entry-level		
<i>Small</i>	9%	1%
<i>Medium</i>	13%	2%
<i>Large</i>	19%	4%
Mid-level		
<i>Small</i>	5%	1%
<i>Medium</i>	5%	2%
<i>Large</i>	11%	4%
Senior-level		
<i>Small</i>	5%	3%
<i>Medium</i>	3%	2%
<i>Large</i>	5%	3%
<b>Community or Technical Colleges</b>		
Entry-level		
<i>Small</i>	13%	1%
<i>Medium</i>	25%	3%
<i>Large</i>	36%	4%

	<i>Percent</i>	<i>Standard Error of Mean (+/-)</i>
Mid-level		
<i>Small</i>	13%	2%
<i>Medium</i>	14%	3%
<i>Large</i>	22%	4%
Senior-level		
<i>Small</i>	8%	2%
<i>Medium</i>	9%	3%
<i>Large</i>	18%	5%
<b>Four-year Colleges and Universities</b>		
Entry-level		
<i>Small</i>	5%	1%
<i>Medium</i>	15%	2%
<i>Large</i>	20%	4%
Mid-level		
<i>Small</i>	9%	2%
<i>Medium</i>	14%	3%
<i>Large</i>	19%	4%
Senior-level		
<i>Small</i>	7%	2%
<i>Medium</i>	11%	3%
<i>Large</i>	27%	5%
<b>Recruiting Agencies</b>		
Entry-level		
<i>Small</i>	8%	1%
<i>Medium</i>	15%	2%
<i>Large</i>	19%	4%
Mid-level		
<i>Small</i>	12%	2%
<i>Medium</i>	14%	3%
<i>Large</i>	22%	5%
Senior-level		
<i>Small</i>	9%	3%
<i>Medium</i>	17%	4%
<i>Large</i>	28%	7%

<b>Other Resources</b>	<i>Percent</i>	<i>Standard Error of Mean (+/-)</i>
Entry-level		
<i>Small</i>	8%	1%
<i>Medium</i>	12%	2%
<i>Large</i>	15%	4%
Mid-level		
<i>Small</i>	9%	2%
<i>Medium</i>	10%	2%
<i>Large</i>	12%	4%
Senior-level		
<i>Small</i>	15%	3%
<i>Medium</i>	17%	3%
<i>Large</i>	19%	5%

Percent of Washington employers identifying **biggest workforce challenges:**

	<i>Percent</i>	<i>Standard Error of Mean (+/-)</i>
Finding job candidates		
<i>Small</i>	37%	2%
<i>Medium</i>	46%	3%
<i>Large</i>	40%	4%
Turnover and retention		
<i>Small</i>	14%	1%
<i>Medium</i>	28%	3%
<i>Large</i>	24%	3%
Replacing retirees		
<i>Small</i>	3%	1%
<i>Medium</i>	1%	0%
<i>Large</i>	6%	2%
Professional development and training employees		
<i>Small</i>	5%	2%
<i>Medium</i>	7%	2%
<i>Large</i>	5%	2%

Other	Percent	Standard Error of Mean (+/-)
<i>Small</i>	5%	1%
<i>Medium</i>	5%	1%
<i>Large</i>	5%	2%
None		
<i>Small</i>	32%	1%
<i>Medium</i>	12%	2%
<i>Large</i>	18%	3%

Percent of Washington employers identifying **actions taken in response to workforce challenges:**

Increased Training	Percent	Standard Error of Mean (+/-)
<i>Small</i>	29%	1%
<i>Medium</i>	44%	3%
<i>Large</i>	37%	5%
Revised Pay Scale or Benefits		
<i>Small</i>	37%	1%
<i>Medium</i>	58%	3%
<i>Large</i>	50%	5%
Automated Functions		
<i>Small</i>	8%	1%
<i>Medium</i>	15%	2%
<i>Large</i>	11%	2%
Used State Workforce System Services		
<i>Small</i>	3%	1%
<i>Medium</i>	6%	1%
<i>Large</i>	8%	2%
Used Temporary Employment Services		
<i>Small</i>	7%	1%
<i>Medium</i>	15%	2%
<i>Large</i>	22%	4%

	<i>Percent</i>	<i>Standard Error of Mean (+/-)</i>
Outsourced Work or Used Contract Services		
<i>Small</i>	9%	1%
<i>Medium</i>	15%	2%
<i>Large</i>	16%	3%
Turned Down or Did Not Pursue Business Opportunities		
<i>Small</i>	11%	1%
<i>Medium</i>	13%	2%
<i>Large</i>	8%	2%
Lowered Requirements for Job		
<i>Small</i>	10%	1%
<i>Medium</i>	12%	2%
<i>Large</i>	12%	3%
Increased Recruiting Efforts		
<i>Small</i>	31%	1%
<i>Medium</i>	51%	3%
<i>Large</i>	53%	5%
Increased Overtime for Existing Employees		
<i>Small</i>	21%	2%
<i>Medium</i>	39%	3%
<i>Large</i>	43%	5%
Other		
<i>Small</i>	2%	1%
<i>Medium</i>	4%	1%
<i>Large</i>	6%	2%
No Action Taken		
<i>Small</i>	7%	1%
<i>Medium</i>	7%	1%
<i>Large</i>	5%	2%

Percent of Washington employers identifying the **effectiveness of outcomes of their responsive actions** to workforce challenges in past 12 months:

Helpful	<i>Percent</i>	<i>Standard Error of Mean (+/-)</i>
<i>Small</i>	49%	3%
<i>Medium</i>	53%	3%
<i>Large</i>	61%	5%
Unsure		
<i>Small</i>	27%	2%
<i>Medium</i>	26%	3%
<i>Large</i>	27%	5%
Not helpful		
<i>Small</i>	24%	3%
<i>Medium</i>	21%	3%
<i>Large</i>	12%	5%

Percent of Washington employers **sharing what state workforce system services they used** in the past three years:

Finding and Hiring Employees	<i>Percent</i>	<i>Standard Error of Mean (+/-)</i>
<i>Small</i>	11%	1%
<i>Medium</i>	19%	2%
<i>Large</i>	28%	4%
Accessing Training for Employees		
<i>Small</i>	3%	0%
<i>Medium</i>	6%	1%
<i>Large</i>	6%	2%
Supporting Workers with Non-skills Related Challenges		
<i>Small</i>	3%	0%
<i>Medium</i>	5%	1%
<i>Large</i>	6%	3%

	<i>Percent</i>	<i>Standard Error of Mean (+/-)</i>
Accessing Labor Market and Industry Information		
<i>Small</i>	5%	1%
<i>Medium</i>	11%	2%
<i>Large</i>	9%	3%
Developing Workforce Practices and Policies		
<i>Small</i>	4%	1%
<i>Medium</i>	5%	1%
<i>Large</i>	6%	2%
Collaborating with the State Workforce System on Career Connected Learning		
<i>Small</i>	2%	0%
<i>Medium</i>	2%	1%
<i>Large</i>	2%	1%
Other		
<i>Small</i>	1%	0%
<i>Medium</i>	3%	1%
<i>Large</i>	3%	1%
None		
<i>Small</i>	78%	1%
<i>Medium</i>	65%	3%
<i>Large</i>	54%	4%

Percent of Washington employers **sharing why they did not use state workforce system services** in past three years **for specific reasons:**

	<i>Percent</i>	<i>Standard Error of Mean (+/-)</i>
Services do not fit the needs of my business or industry		
<i>Small</i>	33%	2%
<i>Medium</i>	27%	3%
<i>Large</i>	27%	5%
Job candidates available are not the right fit for my business		
<i>Small</i>	16%	1%
<i>Medium</i>	15%	3%
<i>Large</i>	16%	5%
Not worth the time or effort		
<i>Small</i>	6%	3%
<i>Medium</i>	8%	2%
<i>Large</i>	11%	1%
The quality of services is not sufficient		
<i>Small</i>	7%	1%
<i>Medium</i>	4%	1%
<i>Large</i>	4%	3%
Not aware of these resources		
<i>Small</i>	45%	2%
<i>Medium</i>	55%	4%
<i>Large</i>	42%	7%
Other Reasons		
<i>Small</i>	15%	1%
<i>Medium</i>	13%	2%
<i>Large</i>	16%	5%
Not Hiring or Not Needing Other Services		
<i>Small</i>	8%	1%
<i>Medium</i>	4%	1%
<i>Large</i>	1%	1%

Percent of Washington firms identifying **changes in the difficulty of filling positions from previous year:**

More Difficult than Last Year	Percent	Standard Error of Mean (+/-)
<i>Small</i>	26%	1%
<i>Medium</i>	25%	2%
<i>Large</i>	30%	4%
Same as Last Year		
<i>Small</i>	64%	2%
<i>Medium</i>	62%	3%
<i>Large</i>	62%	4%
Easier than Last Year		
<i>Small</i>	10%	1%
<i>Medium</i>	13%	2%
<i>Large</i>	9%	2%

Percent of Washington firms **anticipating changes in the difficulty of filling positions for next year:**

More Difficult Next Year	Percent	Standard Error of Mean (+/-)
<i>Small</i>	31%	1%
<i>Medium</i>	33%	4%
<i>Large</i>	34%	5%
Same as This Year		
<i>Small</i>	65%	1%
<i>Medium</i>	60%	4%
<i>Large</i>	54%	4%
Easier Next Year		
<i>Small</i>	3%	1%
<i>Medium</i>	5%	1%
<i>Large</i>	6%	2%